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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JAN 02	STN pricing information for 2008 now available
NEWS 3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 5	JAN 28	MARPAT searching enhanced
NEWS 6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9	FEB 08	STN Express, Version 8.3, now available
NEWS 10	FEB 20	PCI now available as a replacement to DPCI
NEWS 11	FEB 25	IFIREF reloaded with enhancements
NEWS 12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS 13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS 14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS 16	MAR 31	CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS 18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS 20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS 21	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS 22	APR 28	IMSRESEARCH reloaded with enhancements
NEWS 23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS 24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS 25	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS 26	JUN 06	KOREAPAT updated with 41,000 documents
NEWS 27	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS 28	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS 29	JUN 25	CA/CAplus and USPAT databases updated with IPC reclassification data
NEWS 30	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS 31	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS 32	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS 33	JUN 30	STN AnaVist enhanced with database content from EPFULL

```
 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008

=> e "NONOates"
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
The EXPAND command is used to look at the index in a file
which has an index.  This file does not have an index.

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
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FILE COVERS 1907 - 1 Jul 2008  VOL 149 ISS 1
FILE LAST UPDATED: 30 Jun 2008  (20080630/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

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They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> e "NONOates"
E1            2     NONOAT/BI
E2          777     NONOATE/BI
E3          100 --> NONOATES/BI
```

```
E4            1     NONOB/BI
E5            1     NONOBASE/BI
E6            3     NONOBASIC/BI
E7            6     NONOBEDIENCE/BI
E8            5     NONOBERBECK/BI
E9         3356     NONOBESE/BI
E10           1     NONOBESED/BI
E11           1     NONOBESES/BI
E12           5     NONOBESITY/BI

=> s e3
L1          100 NONOATES/BI

=> e "SDD"
E1            1     SDCYCLIC/BI
E2            2     SDCYD/BI
E3          565 --> SDD/BI
E4           14     SDD1/BI
E5            1     SDD12/BI
E6            2     SDD17/BI
E7            1     SDD21/BI
E8            1     SDD31/BI
E9            1     SDD800/BI
E10           1     SDD987666013/BI
E11           5     SDDA/BI
E12           1     SDDAA/BI

=> s e3
            565 SDD/BI
            163 SDDS/BI
L2          661 SDD/BI
                  ((SDD OR SDDS)/BI)

=> s l2 and l1
L3            0 L2 AND L1

=> s "diazenium diolates"
            190 "DIAZENIUM"
              2 "DIAZENIUMS"
            192 "DIAZENIUM"
                  ("DIAZENIUM" OR "DIAZENIUMS")
            120 "DIOLATES"
L4           17 "DIAZENIUM DIOLATES"
                  ("DIAZENIUM"(W)"DIOLATES")

=> s l4 and ("polymeric matrix")
         238145 "POLYMERIC"
             32 "POLYMERICS"
         238163 "POLYMERIC"
                  ("POLYMERIC" OR "POLYMERICS")
         570523 "MATRIX"
          74296 "MATRIXES"
          10377 "MATRICES"
         609567 "MATRIX"
                  ("MATRIX" OR "MATRIXES" OR "MATRICES")
           4648 "POLYMERIC MATRIX"
                  ("POLYMERIC"(W)"MATRIX")
L5            0 L4 AND ("POLYMERIC MATRIX")

=> s l1 and ("polymeric matrix")
         238145 "POLYMERIC"
```

```
           32 "POLYMERICS"
       238163 "POLYMERIC"
                ("POLYMERIC" OR "POLYMERICS")
       570523 "MATRIX"
        74296 "MATRIXES"
        10377 "MATRICES"
       609567 "MATRIX"
                ("MATRIX" OR "MATRIXES" OR "MATRICES")
         4648 "POLYMERIC MATRIX"
                ("POLYMERIC"(W)"MATRIX")
L6            0 L1 AND ("POLYMERIC MATRIX")

=> e ("Solef")
**** START OF FIELD ****
E3            0 --> (SOLEF)/BI
E4            2     -0/BI
E5      5932529     0/BI
E6       114859     00/BI
E7            1     00-10-4/BI
E8            2     00-43-1/BI
E9            2     00-43-2/BI
E10           1     00-50-5/BI
E11      441341     000/BI
E12           1     000-20-5/BI

=> e "Solef"
E1            1     SOLEEN/BI
E2            1     SOLEENS/BI
E3          334 --> SOLEF/BI
E4            1     SOLEF1006/BI
E5            1     SOLEF1010/BI
E6            1     SOLEF1012/BI
E7            1     SOLEF21216/BI
E8            1     SOLEF85/BI
E9            1     SOLEFINIC/BI
E10           1     SOLEFLUE/BI
E11           1     SOLEFX8N/BI
E12           3     SOLEGAL/BI

=> s e3
L7          334 SOLEF/BI

=> d his

     (FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

     FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
                  E "NONOATES"
L1           100 S E3
                  E "SDD"
L2           661 S E3
L3             0 S L2 AND L1
L4            17 S "DIAZENIUM DIOLATES"
L5             0 S L4 AND ("POLYMERIC MATRIX")
L6             0 S L1 AND ("POLYMERIC MATRIX")
                  E ("SOLEF")
                  E "SOLEF"
L7           334 S E3

=> s l7 and (l1 or l2)
L8             0 L7 AND (L1 OR L2)
```

```
=> s l7 and l4
L9              0 L7 AND L4

=> s l1 or l2
L10           761 L1 OR L2

=> s l10 and stents
           6534 STENTS
L11             0 L10 AND STENTS

=> e stent
E1             23     STENSTROM/BI
E2              2     STENSUND/BI
E3           6104 --> STENT/BI
E4              1     STENTAL/BI
E5              2     STENTAN/BI
E6              1     STENTANPACK/BI
E7              1     STENTARTIGEN/BI
E8              1     STENTATE/BI
E9              1     STENTBODY/BI
E10           255     STENTED/BI
E11             1     STENTELEMENTE/BI
E12             1     STENTENDES/BI

=> s e3
           6104 STENT/BI
           6534 STENTS/BI
L12        8224 STENT/BI
                ((STENT OR STENTS)/BI)

=> s l12 and (l10
UNMATCHED LEFT PARENTHESIS 'AND (L10'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s l12 and l10
L13             0 L12 AND L10

=> d his

     (FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

     FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
                E "NONOATES"
L1            100 S E3
                E "SDD"
L2            661 S E3
L3              0 S L2 AND L1
L4             17 S "DIAZENIUM DIOLATES"
L5              0 S L4 AND ("POLYMERIC MATRIX")
L6              0 S L1 AND ("POLYMERIC MATRIX")
                E ("SOLEF")
                E "SOLEF"
L7            334 S E3
L8              0 S L7 AND (L1 OR L2)
L9              0 S L7 AND L4
L10           761 S L1 OR L2
L11             0 S L10 AND STENTS
                E STENT
L12          8224 S E3
```

```
L13           0 S L12 AND L10

=> s l10 and polymer
       1202653 POLYMER
        956760 POLYMERS
       1608023 POLYMER
                 (POLYMER OR POLYMERS)
L14          20 L10 AND POLYMER

=> s l14 and device
        940496 DEVICE
        697823 DEVICES
       1337864 DEVICE
                 (DEVICE OR DEVICES)
L15           1 L14 AND DEVICE

=> d l15 1 hitstr ibib all

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:110160  CAPLUS
DOCUMENT NUMBER:          142:226323
TITLE:                    Deposition of metal nanoparticles on surface of
                          support particles
AUTHOR(S):                Kobayashi, Yoshio
CORPORATE SOURCE:         Grad. Sch. Eng., Tohoku Univ., Japan
SOURCE:                   Shokubai (2005), 47(1), 54
                          CODEN: SHKUAJ; ISSN: 0559-8958
PUBLISHER:                Shokubai Gakkai
DOCUMENT TYPE:            Journal; General Review
LANGUAGE:                 Japanese
AN   2005:110160  CAPLUS
DN   142:226323
ED   Entered STN:  09 Feb 2005
TI   Deposition of metal nanoparticles on surface of support particles
AU   Kobayashi, Yoshio
CS   Grad. Sch. Eng., Tohoku Univ., Japan
SO   Shokubai (2005), 47(1), 54
     CODEN: SHKUAJ; ISSN: 0559-8958
PB   Shokubai Gakkai
DT   Journal; General Review
LA   Japanese
CC   66-0 (Surface Chemistry and Colloids)
AB   A review, on methods allowing particles to support metal nanoparticles
     homogeneously, aiming at new materials for catalysts, electronic
     devices, optical materials, anal. reagents, etc.
ST   review metal nanoparticle supporting polystyrene surface; gold silica
     multishell particle supporting review; catalyst analytical reagent
     supported nanoparticle prepn review
IT   Coating process
        (electroless; preparation of supported metal nanoparticles by adsorption and
        electro(less)plating)
IT   Metals, processes
     RL: PEP (Physical, engineering or chemical process); PYP (Physical
     process); PROC (Process)
        (nanoparticles, supporting method for; preparation of supported metal
        nanoparticles by adsorption and electro(less)plating)
IT   Nanoparticles
        (of metals; preparation of supported metal nanoparticles by adsorption and
        electro(less)plating)
IT   Adsorption
     Electrodeposition
```

(preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 919-30-2, 3-Aminopropyltriethoxysilane
RL: MOA (Modifier or additive use); USES (Uses)
(coupling agents; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 9010-92-8, Methacrylic acid-styrene copolymer
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(metal nanoparticle-supporting; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 7440-02-0, Nickel, processes 7440-48-4, Cobalt, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(nanoparticles, supported on polymer particles; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 7440-22-4, Silver, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(nanoparticles, supported on polystyrene; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 17615-73-5, SDDS
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 7772-99-8, Tin dichloride, reactions 16903-35-8, Chloroauric acid 16940-66-2, Sodium hydroborate
RL: RGT (Reagent); RACT (Reactant or reagent)
(reductants; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

IT 7631-86-9, Silica, processes 9003-53-6, Polystyrene
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(silver nanoparticle-supporting; preparation of supported metal nanoparticles by adsorption and electro(less)plating)

=> d his

(FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
E "NONOATES"
L1 100 S E3
E "SDD"
L2 661 S E3
L3 0 S L2 AND L1
L4 17 S "DIAZENIUM DIOLATES"
L5 0 S L4 AND ("POLYMERIC MATRIX")
L6 0 S L1 AND ("POLYMERIC MATRIX")
E ("SOLEF")
E "SOLEF"
L7 334 S E3
L8 0 S L7 AND (L1 OR L2)
L9 0 S L7 AND L4
L10 761 S L1 OR L2
L11 0 S L10 AND STENTS
E STENT
L12 8224 S E3
L13 0 S L12 AND L10
L14 20 S L10 AND POLYMER

```
L15           1 S L14 AND DEVICE

=> s l7 and ("implantable device")
          6245 "IMPLANTABLE"
             6 "IMPLANTABLES"
          6251 "IMPLANTABLE"
                 ("IMPLANTABLE" OR "IMPLANTABLES")
        940496 "DEVICE"
        697823 "DEVICES"
       1337864 "DEVICE"
                 ("DEVICE" OR "DEVICES")
           798 "IMPLANTABLE DEVICE"
                 ("IMPLANTABLE"(W)"DEVICE")
L16           3 L7 AND ("IMPLANTABLE DEVICE")

=> d l16 1-3 hitstr ibib all

L16  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:1345493  CAPLUS
DOCUMENT NUMBER:          144:74930
TITLE:                    Heparin barrier coating for controlled drug release
INVENTOR(S):              Llanos, Gerard H.; Papandreou, George; Narayanan,
                          Pallassana V.
PATENT ASSIGNEE(S):       Cordis Corporation, USA
SOURCE:                   Can. Pat. Appl., 243 pp.
                          CODEN: CPXXEB
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ----------------    ----   --------    --------------------    --------
     CA 2510220           A1    20051221    CA 2005-2510220         20050620
     EP 1609494           A1    20051228    EP 2005-253631          20050613
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
             BA, HR, IS, YU
     JP 2006006938        A     20060112    JP 2005-179570          20050620
PRIORITY APPLN. INFO.:                     US 2004-872990      A   20040621
AN   2005:1345493  CAPLUS
DN   144:74930
ED   Entered STN:  28 Dec 2005
TI   Heparin barrier coating for controlled drug release
IN   Llanos, Gerard H.; Papandreou, George; Narayanan, Pallassana V.
PA   Cordis Corporation, USA
SO   Can. Pat. Appl., 243 pp.
     CODEN: CPXXEB
DT   Patent
LA   English
IC   ICM  A61L027-34
     ICS  A61L027-04; A61F002-06; A61L027-50; A61L027-54
CC   63-7 (Pharmaceuticals)
     Section cross-reference(s): 1
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ----------------    ----   --------    --------------------    --------
PI   CA 2510220           A1    20051221    CA 2005-2510220         20050620
     EP 1609494           A1    20051228    EP 2005-253631          20050613
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
```

BA, HR, IS, YU

JP 2006006938 A 20060112 JP 2005-179570 20050620

PRAI US 2004-872990 A 20040621

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CA 2510220	ICM	A61L027-34
	ICS	A61L027-04; A61F002-06; A61L027-50; A61L027-54
	IPCI	A61L0027-34 [ICM,7]; A61L0027-04 [ICS,7]; A61F0002-06 [ICS,7]; A61L0027-50 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10; A61L031/16
EP 1609494	IPCI	A61L0031-16 [ICM,7]; A61L0031-14 [ICM,7,C*]; A61L0031-10 [ICS,7]; A61L0031-08 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10; A61L031/16
JP 2006006938	IPCI	A61F0002-82 [I,A]
	FTERM	4C167/AA44; 4C167/AA48; 4C167/AA50; 4C167/AA52; 4C167/BB06; 4C167/BB26; 4C167/CC08; 4C167/CC09; 4C167/DD01; 4C167/EE08; 4C167/FF05; 4C167/GG16; 4C167/GG22; 4C167/GG24; 4C167/GG33; 4C167/GG42; 4C167/GG50; 4C167/HH08

AB Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds. may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. The drugs, agents, and/or compds. may also be utilized to treat specific diseases, including vulnerable plaque. Therapeutic agents may also be delivered to the region of a disease site. In regional delivery, liquid formulations may be desirable to increase the efficacy and deliverability of the particular drug. Also, the devices may be modified to promote endothelialization. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. In addition, the devices utilized to deliver the implantable medical devices may be modified to reduce the potential for damaging the implantable medical device during deployment. Medical devices include stents, grafts, anastomosis devices, perivascular wraps, sutures and staples. In addition, various polymer combinations as well as other therapeutic agents may be utilized to control the elution rates of the therapeutic drugs, agents and/or compds. from the implantable medical devices. In each of these instances, antioxidants are utilized to prolong product integrity. For example, a stent made of Ni-Ti alloy was coated with a rapamycin-polymer coats. The most substantial barrier to the elution of rapamycin was observed with a poly(hexafluoropropene-vinylidene fluoride) (PVDF/HFP) base coat matrix and a poly(Bu methacrylate) (BMA) topcoat because of the chemical barrier that resulted from the incompatible polymer chemistries. Even within the chemical barrier, however, changes in the topcoat thickness or d. still provided addnl. levels of phys. barriers to drug elution, resulting in coating system that provided both a chemical and a phys. barrier to control release of a pharmaceutical compound

ST heparin polymer coating antioxidant controlled drug release implant; vascular disease heparin coating controlled drug release implant

IT Medical goods
(anastomosis devices; heparin barrier coating for controlled drug release from implantable devices)
IT Artery, disease
(coronary, restenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT Artery, disease
(coronary; heparin barrier coating for controlled drug release from implantable devices)
IT Anti-inflammatory agents
Antioxidants
Coating materials
Cytotoxic agents
Dissolution
Drugs
Human
(heparin barrier coating for controlled drug release from implantable devices)
IT Fluoropolymers, biological studies
Polymers, biological studies
Polyoxyalkylenes, biological studies
Tocopherols
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)
IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; heparin barrier coating for controlled drug release from implantable devices)
IT Drug delivery systems
(implants, controlled-release; heparin barrier coating for controlled drug release from implantable devices)
IT Prosthetic materials and Prosthetics
(implants; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(perivascular wraps; heparin barrier coating for controlled drug release from implantable devices)
IT Artery, disease
(restenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(staples; heparin barrier coating for controlled drug release from implantable devices)
IT Artery, disease
(stenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(stents; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(sutures; heparin barrier coating for controlled drug release from implantable devices)
IT Aneurysm
Atherosclerosis
Blood vessel, disease
(treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT 53123-88-9, Rapamycin

RL: DEV (Device component use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sirolimus; heparin barrier coating for controlled drug release from implantable devices)

IT 9011-17-0, Solef 11008
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 11010, Solef 21508; heparin barrier coating for controlled drug release from implantable devices
)

IT 4291-63-8, Cladribine 24280-93-1, Mycophenolic acid
RL: DEV (Device component use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)

IT 362-07-2, Panzem 33419-42-0, Etoposide 58880-19-6, Trichostatin A 123948-87-8, Topotecan
RL: DEV (Device component use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)

IT 50-81-7, L-Ascorbic acid, biological studies 128-37-0, BHT, biological studies 137-66-6, Ascorbyl palmitate 9002-96-4, Vitamin E TPGS 9002-98-6, Polyethylenimine 9003-63-8, Poly(n-butyl methacrylate) 9004-54-0, Dextran, biological studies 9005-49-6, Heparin, biological studies 11114-92-4 12597-68-1, Stainless steel, biological studies 12683-48-6 24937-78-8, EVA 24937-79-9, Solef 1008 25322-68-3, Polyethylene glycol
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)

L16 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1026490 CAPLUS
DOCUMENT NUMBER: 143:312136
TITLE: Phosphoryl choline coating compositions for implants
INVENTOR(S): Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050208093	A1	20050922	US 2004-807362	20040322
WO 2005092406	A1	20051006	WO 2005-US8844	20050317

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,

MR, NE, SN, TD, TG

EP 1732621 A1 20061220 EP 2005-728269 20050317

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2007530733 T 20071101 JP 2007-505015 20050317

PRIORITY APPLN. INFO.: US 2004-807362 A 20040322

WO 2005-US8844 W 20050317

AN 2005:1026490 CAPLUS

DN 143:312136

ED Entered STN: 23 Sep 2005

TI Phosphoryl choline coating compositions for implants

IN Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni

PA USA

SO U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A61K031-785

ICS C08G063-48; C08G063-91; A61K031-765

INCL 424423000; 525054100; 525054200; 424078300

CC 63-8 (Pharmaceuticals)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20050208093	A1	20050922	US 2004-807362	20040322
WO 2005092406	A1	20051006	WO 2005-US8844	20050317

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1732621 A1 20061220 EP 2005-728269 20050317

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2007530733 T 20071101 JP 2007-505015 20050317

PRAI US 2004-807362 A 20040322

WO 2005-US8844 W 20050317

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050208093	ICM	A61K031-785
	ICS	C08G063-48; C08G063-91; A61K031-765
	INCL	424423000; 525054100; 525054200; 424078300
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*]; C08G0063-91 [I,A]
	NCL	424/423.000; 424/078.300; 525/054.100; 525/054.200
WO 2005092406	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*]; C08G0063-91 [I,A]
EP 1732621	IPCI	A61L0031-10 [I,A]; A61L0031-08 [I,C*]; A61L0027-34 [I,A]; A61L0027-00 [I,C*]; C08G0063-91 [I,A]; C08G0063-00 [I,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; C08G0063-00 [I,C];

		C08G0063-91 [I,A]
	ECLA	A61L027/34+C08L33/14; A61L031/10+C08L33/14
JP 2007530733	IPCI	C08G0063-91 [I,A]; C08G0063-00 [I,C*]; C08F0220-10 [I,A]; C08F0220-00 [I,C*]; C08F0230-02 [I,A]; C08F0230-00 [I,C*]; A61L0031-00 [I,A]; A61L0033-10 [I,A]; A61L0033-00 [I,C*]
	IPCR	C08G0063-00 [I,C]; C08G0063-91 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0033-00 [I,C]; A61L0033-10 [I,A]; C08F0220-00 [I,C]; C08F0220-10 [I,A]; C08F0230-00 [I,C]; C08F0230-02 [I,A]
	FTERM	4C081/AC06; 4C081/BA02; 4C081/BA05; 4C081/BB06; 4C081/CA011; 4C081/CA151; 4C081/CE02; 4C081/CE03; 4C081/DC03; 4C081/DC04; 4J029/AA01; 4J029/AA02; 4J029/AC02; 4J029/AE06; 4J029/BA02; 4J029/EA02; 4J029/EG05; 4J029/EH01; 4J029/EH02; 4J029/EH03; 4J029/KH01; 4J100/AJ02P; 4J100/AL03R; 4J100/AL04P; 4J100/AL08P; 4J100/AL08Q; 4J100/AL09P; 4J100/AQ08P; 4J100/BA03P; 4J100/BA08P; 4J100/BA08Q; 4J100/BA32Q; 4J100/BA65Q; 4J100/CA05; 4J100/JA01; 4J100/JA51

AB A polymer comprising phospholipid moieties and a biocompatible polymer backbone, a composition comprising the polymer and optionally a bioactive agent, an implantable devices such as a DES comprising thereon a coating comprising the polymer and optionally a bioactive agent, and a method of using the device for the treatment of a disorder in a human being are provided. 2-Methhyacryloyloxyethyl phosphorylcholine-Bu methacrylate-PEG acrylate copolymer was prepared and used in coating a stent. A 2nd composition comprised Solef and Everolimus which was then coated on the stent followed by a 3rd composition containing the polymer.

ST implant coating phosphorylcholine polymer

IT Polycarbonates, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imino-, polyamide-; phosphorylcholine coating compns. for implants)

IT Prosthetic materials and Prosthetics
(implants; phosphorylcholine coating compns. for implants)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorus-containing; phosphorylcholine coating compns. for implants)

IT Anticoagulants
Blood vessel, disease
Human
Medical goods
(phosphorylcholine coating compns. for implants)

IT Polyamides, biological studies
Polycarbonates, biological studies
Polyesters, biological studies
Polyolefins
Polyurethanes, biological studies
Thrombomodulin
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)

IT Fluoropolymers, biological studies
Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)

IT Polyethers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological

study); USES (Uses)
(polyester-; phosphorylcholine coating compns. for implants)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyether-; phosphorylcholine coating compns. for implants)
IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyiminocarbonate-; phosphorylcholine coating compns. for implants)
IT Medical goods
(stents; phosphorylcholine coating compns. for implants)
IT 864970-59-2P
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 9003-63-8, Poly(butyl methacrylate)
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 629-11-8, 1,6-Hexanediol
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphorylcholine coating compns. for implants)
IT 2987-06-6P, 4-Benzyloxycyclohexanone 13482-22-9P, 4-Hydroxycyclohexanone 168208-62-6P 864971-11-9DP, deprotected, reaction products with phosphorylcholine 864971-11-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(phosphorylcholine coating compns. for implants)
IT 50-02-2, Dexamethasone 50-28-2, Estradiol, biological studies 50-78-2, Aspirin 2226-96-2, TEMPOL 8001-27-2, Hirudin 9002-85-1, Polyvinylidene chloride 9002-86-2, Pvc 9002-89-5, Polyvinyl alcohol) 9003-09-2, Poly(vinyl methyl ether) 9003-20-7, Polyvinyl acetate 9003-27-4, Polyisobutylene 9003-39-8, Poly(N-vinylpyrrolidinone) 9003-53-6D, Polystyrene, sulfonated 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, Abs 9004-54-0D, Dextran, sulfonated 9004-61-9, Hyaluronic acid 9005-49-6, Heparin, biological studies 14691-88-4, 4-Amino-TEMPO 24937-78-8, Eva 24937-79-9, Polyvinylidene fluoride 24938-43-0, Poly(3-hydroxypropionic acid) SRU 25014-41-9, Polyacrylonitrile 25038-54-4, Polycaprolactam, biological studies 25067-34-9, Eval 25101-13-7, Ethylene-methyl methacrylate copolymer 25122-41-2, Clobetasol 25322-68-3, Peg 25718-95-0, Poly(3-hydroxypropionic acid) 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 26780-50-7, Glycolide-lactide copolymer 28728-97-4, Poly[oxy(1-oxo-1,4-butanediyl)] 29223-92-5 31621-87-1, Polydioxanone 31759-58-7 31852-84-3, Poly(trimethylene carbonate) 32131-17-2, Nylon 66, biological studies 33069-62-4, Paclitaxel 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) 53123-88-9, Sirolimus 85637-73-6, Atrial natriuretic peptide 90522-12-6, Poly(N-propylmethacrylamide) 104987-11-3, Tacrolimus 113883-69-5, Glycolic acid-trimethylene carbonate copolymer 114959-05-6 141455-97-2 141655-80-3, 3-Hydroxybutyric acid-valeric acid copolymer 159351-69-6, Everolimus 159351-72-1, 40-O-(3-Hydroxypropyl)-rapamycin 159351-77-6, 40-O-[2-(2-Hydroxyethoxy)ethyl]-rapamycin 219630-20-3, Poly[oxy(1-methyl-4-oxo-1,4-butanediyl)] 221389-50-0, Poly[oxy(1-ethyl-4-oxo-1,4-butanediyl)] 221877-54-9, Abt-578 251634-03-4 331686-32-9 334932-62-6 454473-92-8 698393-66-7,

Styrene-isobutylene triblock copolymer 781658-18-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)

L16 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:426237 CAPLUS
DOCUMENT NUMBER: 142:469389
TITLE: Biologically beneficial coatings for implantable devices containing fluorinated polymers and methods for fabricating the same
INVENTOR(S): Hossainy, Syed F. A.; Tang, Yiwen
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050106204	A1	20050519	US 2003-718278	20031119
WO 2005051453	A1	20050609	WO 2004-US38135	20041115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1684821	A1	20060802	EP 2004-811021	20041115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007515208	T	20070614	JP 2006-541294	20041115

PRIORITY APPLN. INFO.: US 2003-718278 A 20031119
WO 2004-US38135 W 20041115

AN 2005:426237 CAPLUS
DN 142:469389
ED Entered STN: 19 May 2005
TI Biologically beneficial coatings for implantable devices containing fluorinated polymers and methods for fabricating the same
IN Hossainy, Syed F. A.; Tang, Yiwen
PA USA
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61F002-00
INCL 424423000
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20050106204	A1	20050519	US 2003-718278	20031119
WO 2005051453	A1	20050609	WO 2004-US38135	20041115

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1684821 A1 20060802 EP 2004-811021 20041115

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

JP 2007515208 T 20070614 JP 2006-541294 20041115

PRAI US 2003-718278 A 20031119

WO 2004-US38135 W 20041115

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050106204	ICM	A61F002-00
	INCL	424423000
	IPCI	A61F0002-00 [ICM,7]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	NCL	424/423.000
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
WO 2005051453	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
EP 1684821	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-14 [I,C]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
JP 2007515208	IPCI	A61L0031-00 [I,A]; A61F0002-84 [I,A]; A61F0002-82 [I,C*]; A61F0002-04 [I,A]; A61B0017-00 [I,A]
	IPCR	A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61B0017-00 [I,C]; A61B0017-00 [I,A]; A61F0002-04 [I,C]; A61F0002-04 [I,A]; A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	FTERM	4C060/MM25; 4C081/AC08; 4C081/BB06; 4C081/CA132; 4C081/CA162; 4C081/CA182; 4C081/CA192; 4C081/CA232; 4C081/CD082; 4C081/CD35; 4C081/CE02; 4C081/DB07; 4C081/DC03; 4C097/AA15; 4C097/BB01; 4C097/CC03; 4C097/DD01; 4C097/EE06; 4C097/MM05; 4C167/AA50; 4C167/BB06; 4C167/CC08; 4C167/EE08; 4C167/GG04

AB Coatings for drug delivery implantable medical devices and a method of fabricating the coatings are disclosed. The coatings comprise a fluorinated polymer and a biol. beneficial polymer, an example of which includes poly(ethylene-glycol)-block poly(butylene terephthalate)-block poly(ethylene-glycol) (PEG-PBT-PEG block copolymer). A biol. active agent can be addnl. conjugated to the biol. beneficial polymer. For example, a stent was spray coated with a primer, a drug-containing reservoir layer, and a top coat. The primer composition containing about 2.0 % poly(Bu methacrylate) (PBMA) in a solvent blend of acetone and cyclohexanone (7:3) was applied by spraying and the primer was dried and baked at about 50° for about 1 h, yielding a dry primer layer containing about 80 μg of PBMA. The sec. composition contained about 2.0% Solef 21508 and about 1.0% Everolimus, the balance being the same solvent blend of acetone/cyclohexanone. The second composition was applied onto the dried primer layer to form the reservoir layer, using the same spraying technique and equipment used for applying the primer layer, followed by drying and baking at about 50° for about 2 h. A third composition contained about 2.0% PEG-PBT-PEG block copolymer (Polyactive) containing about 45% PBT units and about 55% PEG units, the balance being a solvent blend comprising 1,1,2-trichloroethane and chloroform (4:1). The third composition was applied onto the dried reservoir layer to form a topcoat layer, using the same spraying technique and equipment used for applying the primer and the reservoir layer, followed by drying and baking at about 50° for about 2 h, yielding a dry topcoat layer containing about 250 μg of Polyactive. No damage of the coatings on the outer surface area or inner surface area was observed after subjecting the coated stent to the simulated in-vitro testing.

ST fluoropolymer beneficial polymer coating implant stent drug delivery

IT Coating materials
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Fluoropolymers, biological studies
Peptides, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Drug delivery systems
Prosthetic materials and Prosthetics
(implants; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyamide-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polyoxyalkylene-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Medical goods
(stents; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT 107-73-3, Phosphorylcholine 9002-83-9, Poly(chlorotrifluoroethylene) 9002-84-0, Poly(tetrafluoroethylene) 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-63-8, Poly(butyl methacrylate) 9004-61-9, Hyaluronic acid 9010-75-7, Poly(vinylidene fluoride-co-chlorotrifluoroethylene) 9011-17-0, Solef 21508 24937-79-9, Poly(vinylidene fluoride) 25038-71-5, Poly(ethylene-co-tetrafluoroethylene) 25067-11-2, Poly(tetrafluoroethylene-co-hexafluoropropene) 25120-07-4, Poly(hexafluoropropene) 25322-68-3, Poly(ethyleneglycol) 25684-76-8, Poly(vinylidene fluoride-co-tetrafluoroethylene) 25792-94-3, Poly(oxy-1,2-phenylenecarbonyl) 26160-99-6, Poly(ethylene-co-hexafluoropropene) 26299-59-2, Poly(tetrafluoroethylene-co-vinyl acetate) 27029-05-6, Poly(tetrafluoroethylene-co-propene) 30977-14-1, Poly(tetrafluoroethylene-co-vinyl alcohol) 37697-64-6D, Perfluoro-2,2-dimethyl-1,3-dioxole, copolymers with perfluoroolefins or perfluoro(alkyl vinyl) ethers 53123-88-9, Rapamycin 89655-56-1 101182-88-1 112504-40-2 122817-56-5 152151-31-0, Poly(perfluorobutenyl vinyl ether) 159351-69-6, Everolimus 676258-92-7
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT 10102-43-9, Nitrogen oxide (NO), biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

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(FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008

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                E "NONOATES"
L1          100 S E3
                E "SDD"
L2          661 S E3
L3            0 S L2 AND L1
L4           17 S "DIAZENIUM DIOLATES"
L5            0 S L4 AND ("POLYMERIC MATRIX")
L6            0 S L1 AND ("POLYMERIC MATRIX")
                E ("SOLEF")
                E "SOLEF"
L7          334 S E3
L8            0 S L7 AND (L1 OR L2)
L9            0 S L7 AND L4
L10         761 S L1 OR L2
L11           0 S L10 AND STENTS
                E STENT
L12        8224 S E3
L13           0 S L12 AND L10
L14          20 S L10 AND POLYMER
L15           1 S L14 AND DEVICE
L16           3 S L7 AND ("IMPLANTABLE DEVICE")
```

```
=> s l7 and stent
          6104 STENT
          6534 STENTS
          8224 STENT
                 (STENT OR STENTS)
L17         29 L7 AND STENT

=> s l17 and ("coated stent")
        540904 "COATED"
             2 "COATEDS"
        540906 "COATED"
                 ("COATED" OR "COATEDS")
          6104 "STENT"
          6534 "STENTS"
          8224 "STENT"
                 ("STENT" OR "STENTS")
           396 "COATED STENT"
                 ("COATED"(W)"STENT")
L18           4 L17 AND ("COATED STENT")

=> dup rem l18 l16
PROCESSING COMPLETED FOR L18
PROCESSING COMPLETED FOR L16
L19           6 DUP REM L18 L16 (1 DUPLICATE REMOVED)
                ANSWERS '1-6' FROM FILE CAPLUS

=> d l19 1-6 hitstr ibib all

L19  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2008 ACS on STN  DUPLICATE 1
ACCESSION NUMBER:         2005:426237  CAPLUS
DOCUMENT NUMBER:          142:469389
TITLE:                    Biologically beneficial coatings for implantable
                          devices containing fluorinated polymers and methods
                          for fabricating the same
INVENTOR(S):              Hossainy, Syed F. A.; Tang, Yiwen
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 15 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
     US 20050106204       A1    20050519    US 2003-718278         20031119
     WO 2005051453        A1    20050609    WO 2004-US38135        20041115
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
             SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     EP 1684821           A1    20060802    EP 2004-811021         20041115
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
```

	JP 2007515208	T	20070614	JP 2006-541294		20041115
PRIORITY APPLN. INFO.:				US 2003-718278	A	20031119
				WO 2004-US38135	W	20041115

AN 2005:426237 CAPLUS
DN 142:469389
ED Entered STN: 19 May 2005
TI Biologically beneficial coatings for implantable devices containing fluorinated polymers and methods for fabricating the same
IN Hossainy, Syed F. A.; Tang, Yiwen
PA USA
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61F002-00
INCL 424423000
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050106204	A1	20050519	US 2003-718278	20031119
	WO 2005051453	A1	20050609	WO 2004-US38135	20041115
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	EP 1684821	A1	20060802	EP 2004-811021	20041115
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
	JP 2007515208	T	20070614	JP 2006-541294	20041115
PRAI	US 2003-718278	A	20031119		
	WO 2004-US38135	W	20041115		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050106204	ICM	A61F002-00
	INCL	424423000
	IPCI	A61F0002-00 [ICM,7]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	NCL	424/423.000
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
WO 2005051453	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02

EP 1684821	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-14 [I,C]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
JP 2007515208	IPCI	A61L0031-00 [I,A]; A61F0002-84 [I,A]; A61F0002-82 [I,C*]; A61F0002-04 [I,A]; A61B0017-00 [I,A]
	IPCR	A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61B0017-00 [I,C]; A61B0017-00 [I,A]; A61F0002-04 [I,C]; A61F0002-04 [I,A]; A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	FTERM	4C060/MM25; 4C081/AC08; 4C081/BB06; 4C081/CA132; 4C081/CA162; 4C081/CA182; 4C081/CA192; 4C081/CA232; 4C081/CD082; 4C081/CD35; 4C081/CE02; 4C081/DB07; 4C081/DC03; 4C097/AA15; 4C097/BB01; 4C097/CC03; 4C097/DD01; 4C097/EE06; 4C097/MM05; 4C167/AA50; 4C167/BB06; 4C167/CC08; 4C167/EE08; 4C167/GG04

AB Coatings for drug delivery implantable medical devices and a method of fabricating the coatings are disclosed. The coatings comprise a fluorinated polymer and a biol. beneficial polymer, an example of which includes poly(ethylene-glycol)-block poly(butylene terephthalate)-block poly(ethylene-glycol) (PEG-PBT-PEG block copolymer). A biol. active agent can be addnl. conjugated to the biol. beneficial polymer. For example, a stent was spray coated with a primer, a drug-containing reservoir layer, and a top coat. The primer composition containing about 2.0 % poly(Bu methacrylate) (PBMA) in a solvent blend of acetone and cyclohexanone (7:3) was applied by spraying and the primer was dried and baked at about 50° for about 1 h, yielding a dry primer layer containing about 80 μg of PBMA. The sec. composition contained about 2.0% Solef 21508 and about 1.0% Everolimus, the balance being the same solvent blend of acetone/cyclohexanone. The second composition was applied onto the dried primer layer to form the reservoir layer, using the same spraying technique and equipment used for applying the primer layer, followed by drying and baking at about 50° for about 2 h. A third composition contained about 2.0% PEG-PBT-PEG block copolymer (Polyactive) containing about 45% PBT units and about 55% PEG units, the balance being a solvent blend comprising 1,1,2-trichloroethane and chloroform (4:1). The third composition was applied onto the dried reservoir layer to form a topcoat layer, using the same spraying technique and equipment used for applying the primer and the reservoir layer, followed by drying and baking at about 50° for about 2 h, yielding a dry topcoat layer containing about 250 μg of Polyactive. No damage of the coatings on the outer surface area or inner surface area was observed after subjecting the coated stent to the simulated in-vitro testing.

ST fluoropolymer beneficial polymer coating implant stent drug delivery

IT Coating materials
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Fluoropolymers, biological studies
Peptides, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Drug delivery systems
Prosthetic materials and Prosthetics
(implants; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyamide-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT Medical goods
(stents; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT 107-73-3, Phosphorylcholine 9002-83-9, Poly(chlorotrifluoroethylene) 9002-84-0, Poly(tetrafluoroethylene) 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-63-8, Poly(butyl methacrylate) 9004-61-9, Hyaluronic acid 9010-75-7, Poly(vinylidene fluoride-co-chlorotrifluoroethylene) 9011-17-0, Solef 21508 24937-79-9, Poly(vinylidene fluoride) 25038-71-5, Poly(ethylene-co-tetrafluoroethylene) 25067-11-2, Poly(tetrafluoroethylene-co-hexafluoropropene) 25120-07-4, Poly(hexafluoropropene) 25322-68-3, Poly(ethyleneglycol) 25684-76-8, Poly(vinylidene fluoride-co-tetrafluoroethylene) 25792-94-3, Poly(oxy-1,2-phenylenecarbonyl) 26160-99-6, Poly(ethylene-co-hexafluoropropene) 26299-59-2, Poly(tetrafluoroethylene-co-vinyl acetate) 27029-05-6, Poly(tetrafluoroethylene-co-propene) 30977-14-1, Poly(tetrafluoroethylene-co-vinyl alcohol) 37697-64-6D, Perfluoro-2,2-dimethyl-1,3-dioxole, copolymers with perfluoroolefins or perfluoro(alkyl vinyl) ethers 53123-88-9, Rapamycin 89655-56-1 101182-88-1 112504-40-2 122817-56-5 152151-31-0, Poly(perfluorobutenyl vinyl ether) 159351-69-6, Everolimus 676258-92-7
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)
IT 10102-43-9, Nitrogen oxide (NO), biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

L19 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:119404 CAPLUS
DOCUMENT NUMBER: 146:212943
TITLE: Polymer coating and system for treating aneurysmal disease

INVENTOR(S): Narayanan, Pallasssana Venketesswaran
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 115pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070026042	A1	20070201	US 2005-193177	20050729
CA 2554394	A1	20070129	CA 2006-2554394	20060727
JP 2007037998	A	20070215	JP 2006-206752	20060728
EP 1749545	A2	20070207	EP 2006-253983	20060731
EP 1749545	A3	20070321		

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

PRIORITY APPLN. INFO.: US 2005-193177 A 20050729

AN 2007:119404 CAPLUS
DN 146:212943
ED Entered STN: 02 Feb 2007
TI Polymer coating and system for treating aneurysmal disease
IN Narayanan, Pallasssana Venketesswaran
PA USA
SO U.S. Pat. Appl. Publ., 115pp.
CODEN: USXXCO
DT Patent
LA English
INCL 424426000; 514152000; 514291000; 514171000
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20070026042	A1	20070201	US 2005-193177	20050729
	CA 2554394	A1	20070129	CA 2006-2554394	20060727
	JP 2007037998	A	20070215	JP 2006-206752	20060728
	EP 1749545	A2	20070207	EP 2006-253983	20060731
	EP 1749545	A3	20070321		

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

PRAI US 2005-193177 A 20050729

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20070026042	INCL	424426000; 514152000; 514291000; 514171000
	IPCI	A61F0002-02 [I,A]; A61K0031-65 [I,A]; A61K0031-573 [I,A]; A61K0031-57 [I,C*]; A61K0031-4745 [I,A]; A61K0031-4738 [I,C*]
	IPCR	A61F0002-02 [I,C]; A61F0002-02 [I,A]; A61K0031-4738 [I,C]; A61K0031-4745 [I,A]; A61K0031-57 [I,C]; A61K0031-573 [I,A]; A61K0031-65 [I,C]; A61K0031-65 [I,A]
	NCL	424/426.000; 514/152.000; 514/171.000; 514/291.000
CA 2554394	IPCI	A61F0002-90 [I,A]; A61F0002-82 [I,C*]; A61K0031-436 [I,A]; A61K0031-4353 [I,C*]; A61K0031-573 [I,A]; A61K0031-57 [I,C*]; A61K0031-65 [I,A]; A61M0025-14 [I,A]; A61M0031-00 [I,A]

	IPCR	A61K0031-65 [I,C]; A61K0031-65 [I,A]; A61F0002-82 [I,C]; A61F0002-90 [I,A]; A61K0031-4353 [I,C]; A61K0031-436 [I,A]; A61K0031-57 [I,C]; A61K0031-573 [I,A]; A61M0025-14 [I,C]; A61M0025-14 [I,A]; A61M0031-00 [I,C]; A61M0031-00 [I,A]
JP 2007037998	IPCI	A61F0002-84 [I,A]; A61F0002-82 [I,A]; A61K0009-00 [I,A]; A61K0045-06 [I,A]; A61K0045-00 [I,C*]; A61K0031-65 [I,A]; A61K0031-436 [I,A]; A61K0031-4353 [I,C*]; A61K0031-573 [I,A]; A61K0031-57 [I,C*]; A61P0009-00 [I,A]
	IPCR	A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61F0002-82 [I,A]; A61K0009-00 [I,C]; A61K0009-00 [I,A]; A61K0031-4353 [I,C]; A61K0031-436 [I,A]; A61K0031-57 [I,C]; A61K0031-573 [I,A]; A61K0031-65 [I,C]; A61K0031-65 [I,A]; A61K0045-00 [I,C]; A61K0045-06 [I,A]; A61P0009-00 [I,C]; A61P0009-00 [I,A]
	FTERM	4C076/AA99; 4C076/BB32; 4C076/CC11; 4C084/AA20; 4C084/MA02; 4C084/MA67; 4C084/NA10; 4C084/ZA361; 4C086/AA01; 4C086/AA02; 4C086/CB22; 4C086/DA10; 4C086/DA29; 4C086/MA02; 4C086/MA04; 4C086/MA67; 4C086/NA10; 4C086/ZA36; 4C167/AA42; 4C167/AA44; 4C167/AA46; 4C167/AA47; 4C167/AA50; 4C167/AA51; 4C167/AA56; 4C167/BB03; 4C167/BB05; 4C167/BB06; 4C167/BB11; 4C167/BB12; 4C167/BB13; 4C167/BB16; 4C167/BB17; 4C167/BB18; 4C167/BB20; 4C167/BB26; 4C167/BB39; 4C167/BB40; 4C167/CC08; 4C167/CC09; 4C167/CC10; 4C167/GG16
EP 1749545	IPCI	A61L0031-16 [I,A]; A61L0031-14 [I,C*]
	IPCR	A61L0031-14 [I,C]; A61L0031-16 [I,A]

AB Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds. may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. The drugs, agents, and/or compds. may also be utilized to treat specific diseases, including vulnerable plaque. Therapeutic agents may also be delivered to the region of a disease site. In regional delivery, liquid formulations may be desirable to increase the efficacy and deliverability of the particular drug. Also, the devices may be modified to promote endothelialization. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. In addition, the devices utilized to deliver the implantable medical devices may be modified to reduce the potential for damaging the implantable medical device during deployment. Medical devices include stents, grafts, anastomotic devices, perivascular wraps, sutures and staples. In addition, various polymer combinations may be utilized to control the elution rates of the therapeutic drugs, agents and/or compds. from the implantable medical devices. For example, a coating solution comprising about 20% of a polyfluoro copolymer (Solef 21508), comprising 85.5% vinylidenefluoride copolymd. with 14.5% HFP, in a 50:50 DMAc/MEK was applied to a stent and dried at 60°, resulting in a clear adherent film. The coating process was repeated with a coating comprising the 85.5/14.6 vinylidenefluoride/HFP and about 30% of rapamycin. Clear films that would occasionally crack or peel upon expansion of the coated stents resulted. It is believed that inclusion

of plasticizers and the like in the coating composition will result in coatings and films for use on stents and other medical devices that are not susceptible to such cracking and peeling.

ST polymer coating drug delivery implant aneurysm

IT Medical goods
(anastomotic devices; implantable drug delivery system for treating aneurysmal disease)

IT Artificial organ
(artery; implantable drug delivery system for treating aneurysmal disease)

IT Artery
(artificial; implantable drug delivery system for treating aneurysmal disease)

IT Pharmaceutical implants
Pharmaceutical implants
(controlled-release; implantable drug delivery system for treating aneurysmal disease)

IT Prosthetic materials and Prosthetics
(endoprosthetic; implantable drug delivery system for treating aneurysmal disease)

IT Fluoro rubber
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; implantable drug delivery system for treating aneurysmal disease)

IT Anti-inflammatory agents
Antimicrobial agents
Coating materials
Cytotoxic agents
Human
(implantable drug delivery system for treating aneurysmal disease)

IT Elastins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(implantable drug delivery system for treating aneurysmal disease)

IT Fluoropolymers, biological studies
Polyoxyalkylenes, biological studies
Tetracyclines
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable drug delivery system for treating aneurysmal disease)

IT Controlled-release drug delivery systems
Controlled-release drug delivery systems
Prosthetic materials and Prosthetics
(implants; implantable drug delivery system for treating aneurysmal disease)

IT Polymers, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(matrix coatings; implantable drug delivery system for treating aneurysmal disease)

IT Medical goods
(perivascular wraps; implantable drug delivery system for treating aneurysmal disease)

IT Inflammation
(reduction of; implantable drug delivery system for treating aneurysmal disease)

IT Medical goods
(staples; implantable drug delivery system for treating aneurysmal disease)

IT Medical goods
(stents; implantable drug delivery system for treating

aneurysmal disease)
IT Medical goods
(sutures; implantable drug delivery system for treating aneurysmal disease)
IT Aneurysm
(treatment of; implantable drug delivery system for treating aneurysmal disease)
IT 53123-88-9, Rapamycin
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sirolimus; implantable drug delivery system for treating aneurysmal disease)
IT 9011-17-0, Solef 11008
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 21508; implantable drug delivery system for treating aneurysmal disease)
IT 362-07-2, Panzem 518-28-5, Podophyllotoxin 4291-63-8, Cladribine 7689-03-4, Camptothecin 9002-96-4, Vitamin E TPGS 24280-93-1, Mycophenolic acid 24937-78-8 24937-79-9, Solef 1008 25322-68-3, Polyethylene glycol 29767-20-2, Teniposide 33419-42-0, Etoposide 37047-59-9 58880-19-6, Trichostatin A 97682-44-5, Irinotecan 123948-87-8, Topotecan
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable drug delivery system for treating aneurysmal disease)
IT 142805-56-9, Topoisomerase II 143180-75-0
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; implantable drug delivery system for treating aneurysmal disease)
IT 7440-44-0, Carbon, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pyrolytic; implantable drug delivery system for treating aneurysmal disease)
IT 9040-48-6, Gelatinase 141907-41-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(regulation of; implantable drug delivery system for treating aneurysmal disease)

L19 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:591970 CAPLUS
DOCUMENT NUMBER: 143:103357
TITLE: Coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same
INVENTOR(S): Glauser, Thierry; Kwok, Connie S.; Claude, Charles D.; Michal, Eugene T.; Tang, Yiwen; Astafieva, Irina; Pacetti, Stephen D.; Whatley, John; Shah, Ashok
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050147647	A1	20050707	US 2003-746483	20031224
PRIORITY APPLN. INFO.:			US 2003-746483	20031224

AN 2005:591970 CAPLUS
DN 143:103357
ED Entered STN: 08 Jul 2005
TI Coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same
IN Glauser, Thierry; Kwok, Connie S.; Claude, Charles D.; Michal, Eugene T.; Tang, Yiwen; Astafieva, Irina; Pacetti, Stephen D.; Whatley, John; Shah, Ashok
PA USA
SO U.S. Pat. Appl. Publ., 22 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61F002-06
INCL 424426000; 623001460
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 35
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20050147647	A1	20050707	US 2003-746483	20031224
PRAI US 2003-746483		20031224		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050147647	ICM	A61F002-06
	INCL	424426000; 623001460
	IPCI	A61F0002-06 [ICM,7]
	IPCR	A61F0002-00 [N,C*]; A61F0002-00 [N,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	NCL	424/426.000; 623/001.460
	ECLA	A61L031/10+C08L75/04; A61L031/16

AB A segmented polyurethane and an amphiphilic random or block copolymer are disclosed. The segmented polyurethane and the amphiphilic random or block copolymer can be used for fabricating a coating for an implantable medical device such as a stent. For example, a primed medical stent was coated with first layer comprising 1.5% poly(hydroxyethyl methacrylate)-poly(Bu methacrylate)-poly(hydroxyethyl methacrylate) diblock copolymer and 0.5% cyclic RGD peptide. The topcoat layer comprising 2.0% poly(Bu methacrylate) was applied on dried first layer coating and then topcoat layer was dried. The coated stent showed good mech. qualities while providing a sustained release of cyclic-RGD.
ST polymer drug implant stent coating
IT Polymers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(block; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)
IT Amphiphiles
Drug delivery systems
(coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)
IT RGD peptides
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cyclic; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)
IT Urethane rubber, biological studies

RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cyclohexanediamine-di-Me siloxane-diphenylmethane diisocyanate-ethylenediamine-polytetramethylene glycol, block; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Peptides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(elastin mimetic; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Prosthetic materials and Prosthetics
(implants; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Polyurethanes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycarbonate-; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Polyurethanes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyether-; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Polyurethanes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyurea-; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Polycarbonates, biological studies
Polyureas
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyurethane-; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT Medical goods
(stents; coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT 25702-92-5P 856702-94-8P 856702-95-9P 856702-96-0P 856705-17-4P 856705-18-5P 856705-19-6P
RL: DEV (Device component use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(coatings for implantable medical devices comprising polymer and hydrophilic therapeutic agent, and methods for fabricating the same)

IT 9003-63-8, Poly(butyl methacrylate) 9011-17-0, SOLEF 21508 14191-90-3 24937-47-1, Poly(L-arginine) 25104-18-1, Poly(L-lysine) 25212-18-4, Poly(L-arginine) 26853-89-4, Poly(D-lysine) 26913-90-6, Poly(D-lysine) 38000-06-5, Poly(L-lysine) 42884-60-6, Poly(DL-arginine) 61155-84-8, Poly(D-arginine) 61155-85-9, Poly(D-arginine), SRU 61177-59-1, Poly(DL-arginine), SRU
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for implantable medical devices comprising polymer and

hydrophilic therapeutic agent, and methods for fabricating the same)

L19 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1026490 CAPLUS
DOCUMENT NUMBER: 143:312136
TITLE: Phosphoryl choline coating compositions for implants
INVENTOR(S): Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050208093	A1	20050922	US 2004-807362	20040322
WO 2005092406	A1	20051006	WO 2005-US8844	20050317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1732621	A1	20061220	EP 2005-728269	20050317
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2007530733	T	20071101	JP 2007-505015	20050317
PRIORITY APPLN. INFO.:			US 2004-807362 A	20040322
			WO 2005-US8844 W	20050317

AN 2005:1026490 CAPLUS
DN 143:312136
ED Entered STN: 23 Sep 2005
TI Phosphoryl choline coating compositions for implants
IN Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni
PA USA
SO U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K031-785
ICS C08G063-48; C08G063-91; A61K031-765
INCL 424423000; 525054100; 525054200; 424078300
CC 63-8 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20050208093	A1	20050922	US 2004-807362	20040322
WO 2005092406	A1	20051006	WO 2005-US8844	20050317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,				

SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1732621 A1 20061220 EP 2005-728269 20050317
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2007530733 T 20071101 JP 2007-505015 20050317

PRAI US 2004-807362 A 20040322

WO 2005-US8844 W 20050317

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050208093	ICM	A61K031-785
	ICS	C08G063-48; C08G063-91; A61K031-765
	INCL	424423000; 525054100; 525054200; 424078300
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*]; C08G0063-91 [I,A]
	NCL	424/423.000; 424/078.300; 525/054.100; 525/054.200
WO 2005092406	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*]; C08G0063-91 [I,A]
EP 1732621	IPCI	A61L0031-10 [I,A]; A61L0031-08 [I,C*]; A61L0027-34 [I,A]; A61L0027-00 [I,C*]; C08G0063-91 [I,A]; C08G0063-00 [I,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; C08G0063-00 [I,C]; C08G0063-91 [I,A]
	ECLA	A61L027/34+C08L33/14; A61L031/10+C08L33/14
JP 2007530733	IPCI	C08G0063-91 [I,A]; C08G0063-00 [I,C*]; C08F0220-10 [I,A]; C08F0220-00 [I,C*]; C08F0230-02 [I,A]; C08F0230-00 [I,C*]; A61L0031-00 [I,A]; A61L0033-10 [I,A]; A61L0033-00 [I,C*]
	IPCR	C08G0063-00 [I,C]; C08G0063-91 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0033-00 [I,C]; A61L0033-10 [I,A]; C08F0220-00 [I,C]; C08F0220-10 [I,A]; C08F0230-00 [I,C]; C08F0230-02 [I,A]
	FTERM	4C081/AC06; 4C081/BA02; 4C081/BA05; 4C081/BB06; 4C081/CA011; 4C081/CA151; 4C081/CE02; 4C081/CE03; 4C081/DC03; 4C081/DC04; 4J029/AA01; 4J029/AA02; 4J029/AC02; 4J029/AE06; 4J029/BA02; 4J029/EA02; 4J029/EG05; 4J029/EH01; 4J029/EH02; 4J029/EH03; 4J029/KH01; 4J100/AJ02P; 4J100/AL03R; 4J100/AL04P; 4J100/AL08P; 4J100/AL08Q; 4J100/AL09P; 4J100/AQ08P; 4J100/BA03P; 4J100/BA08P; 4J100/BA08Q; 4J100/BA32Q; 4J100/BA65Q; 4J100/CA05; 4J100/JA01; 4J100/JA51

AB A polymer comprising phospholipid moieties and a biocompatible polymer backbone, a composition comprising the polymer and optionally a bioactive agent, an implantable devices such as a DES comprising thereon a coating comprising the polymer and optionally a bioactive agent, and a method of using the device for the treatment of a disorder in a human being are provided. 2-Methhyacryloyloxyethyl phosphorylcholine-Bu methacrylate-PEG acrylate copolymer was prepared and used in coating a stent. A 2nd composition comprised Solef and Everolimus which was then coated on the stent followed by a 3rd composition containing the polymer.

ST implant coating phosphorylcholine polymer

IT Polycarbonates, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imino-, polyamide-; phosphorylcholine coating compns. for implants)
IT Prosthetic materials and Prosthetics
(implants; phosphorylcholine coating compns. for implants)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorus-containing; phosphorylcholine coating compns. for implants)
IT Anticoagulants
Blood vessel, disease
Human
Medical goods
(phosphorylcholine coating compns. for implants)
IT Polyamides, biological studies
Polycarbonates, biological studies
Polyesters, biological studies
Polyolefins
Polyurethanes, biological studies
Thrombomodulin
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT Fluoropolymers, biological studies
Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT Polyethers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-; phosphorylcholine coating compns. for implants)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyether-; phosphorylcholine coating compns. for implants)
IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyiminocarbonate-; phosphorylcholine coating compns. for implants)
IT Medical goods
(stents; phosphorylcholine coating compns. for implants)
IT 864970-59-2P
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 9003-63-8, Poly(butyl methacrylate)
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 629-11-8, 1,6-Hexanediol
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphorylcholine coating compns. for implants)
IT 2987-06-6P, 4-Benzyloxycyclohexanone 13482-22-9P, 4-Hydroxycyclohexanone 168208-62-6P 864971-11-9DP, deprotected, reaction products with phosphorylcholine 864971-11-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(phosphorylcholine coating compns. for implants)

IT 50-02-2, Dexamethasone 50-28-2, Estradiol, biological studies 50-78-2, Aspirin 2226-96-2, TEMPOL 8001-27-2, Hirudin 9002-85-1, Polyvinylidene chloride 9002-86-2, Pvc 9002-89-5, Polyvinyl alcohol 9003-09-2, Poly(vinyl methyl ether) 9003-20-7, Polyvinyl acetate 9003-27-4, Polyisobutylene 9003-39-8, Poly(N-vinylpyrrolidinone) 9003-53-6D, Polystyrene, sulfonated 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, Abs 9004-54-0D, Dextran, sulfonated 9004-61-9, Hyaluronic acid 9005-49-6, Heparin, biological studies 14691-88-4, 4-Amino-TEMPO 24937-78-8, Eva 24937-79-9, Polyvinylidene fluoride 24938-43-0, Poly(3-hydroxypropionic acid) SRU 25014-41-9, Polyacrylonitrile 25038-54-4, Polycaprolactam, biological studies 25067-34-9, Eval 25101-13-7, Ethylene-methyl methacrylate copolymer 25122-41-2, Clobetasol 25322-68-3, Peg 25718-95-0, Poly(3-hydroxypropionic acid) 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 26780-50-7, Glycolide-lactide copolymer 28728-97-4, Poly[oxy(1-oxo-1,4-butanediyl)] 29223-92-5 31621-87-1, Polydioxanone 31759-58-7 31852-84-3, Poly(trimethylene carbonate) 32131-17-2, Nylon 66, biological studies 33069-62-4, Paclitaxel 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) 53123-88-9, Sirolimus 85637-73-6, Atrial natriuretic peptide 90522-12-6, Poly(N-propylmethacrylamide) 104987-11-3, Tacrolimus 113883-69-5, Glycolic acid-trimethylene carbonate copolymer 114959-05-6 141455-97-2 141655-80-3, 3-Hydroxybutyric acid-valeric acid copolymer 159351-69-6, Everolimus 159351-72-1, 40-O-(3-Hydroxypropyl)-rapamycin 159351-77-6, 40-O-[2-(2-Hydroxyethoxy)ethyl]-rapamycin 219630-20-3, Poly[oxy(1-methyl-4-oxo-1,4-butanediyl)] 221389-50-0, Poly[oxy(1-ethyl-4-oxo-1,4-butanediyl)] 221877-54-9, Abt-578 251634-03-4 331686-32-9 334932-62-6 454473-92-8 698393-66-7, Styrene-isobutylene triblock copolymer 781658-18-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phosphorylcholine coating compns. for implants)

L19 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1345493 CAPLUS

DOCUMENT NUMBER: 144:74930

TITLE: Heparin barrier coating for controlled drug release

INVENTOR(S): Llanos, Gerard H.; Papandreou, George; Narayanan, Pallassana V.

PATENT ASSIGNEE(S): Cordis Corporation, USA

SOURCE: Can. Pat. Appl., 243 pp.
CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2510220	A1	20051221	CA 2005-2510220	20050620
EP 1609494	A1	20051228	EP 2005-253631	20050613
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2006006938	A	20060112	JP 2005-179570	20050620

PRIORITY APPLN. INFO.: US 2004-872990 A 20040621

AN 2005:1345493 CAPLUS

DN 144:74930

ED Entered STN: 28 Dec 2005

TI Heparin barrier coating for controlled drug release

IN Llanos, Gerard H.; Papandreou, George; Narayanan, Pallassana V.
PA Cordis Corporation, USA
SO Can. Pat. Appl., 243 pp.
CODEN: CPXXEB
DT Patent
LA English
IC ICM A61L027-34
ICS A61L027-04; A61F002-06; A61L027-50; A61L027-54
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2510220	A1	20051221	CA 2005-2510220	20050620
	EP 1609494	A1	20051228	EP 2005-253631	20050613
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
	JP 2006006938	A	20060112	JP 2005-179570	20050620
PRAI	US 2004-872990	A	20040621		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CA 2510220	ICM	A61L027-34
	ICS	A61L027-04; A61F002-06; A61L027-50; A61L027-54
	IPCI	A61L0027-34 [ICM,7]; A61L0027-04 [ICS,7]; A61F0002-06 [ICS,7]; A61L0027-50 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10; A61L031/16
EP 1609494	IPCI	A61L0031-16 [ICM,7,C*]; A61L0031-14 [ICM,7,C*]; A61L0031-10 [ICS,7]; A61L0031-08 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10; A61L031/16
JP 2006006938	IPCI	A61F0002-82 [I,A]
	FTERM	4C167/AA44; 4C167/AA48; 4C167/AA50; 4C167/AA52; 4C167/BB06; 4C167/BB26; 4C167/CC08; 4C167/CC09; 4C167/DD01; 4C167/EE08; 4C167/FF05; 4C167/GG16; 4C167/GG22; 4C167/GG24; 4C167/GG33; 4C167/GG42; 4C167/GG50; 4C167/HH08

AB Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds. may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. The drugs, agents, and/or compds. may also be utilized to treat specific diseases, including vulnerable plaque. Therapeutic agents may also be delivered to the region of a disease site. In regional delivery, liquid formulations may be desirable to increase the efficacy and deliverability of the particular drug. Also, the devices may be modified to promote endothelialization. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. In addition, the devices utilized to deliver the implantable medical devices may be modified to reduce the potential

for damaging the implantable medical device during deployment. Medical devices include stents, grafts, anastomosis devices, perivascular wraps, sutures and staples. In addition, various polymer combinations as well as other therapeutic agents may be utilized to control the elution rates of the therapeutic drugs, agents and/or compds. from the implantable medical devices. In each of these instances, antioxidants are utilized to prolong product integrity. For example, a stent made of Ni-Ti alloy was coated with a rapamycin-polymer coats. The most substantial barrier to the elution of rapamycin was observed with a poly(hexafluoropropene-vinylidene fluoride) (PVDF/HFP) base coat matrix and a poly(Bu methacrylate) (BMA) topcoat because of the chemical barrier that resulted from the incompatible polymer chemistries. Even within the chemical barrier, however, changes in the topcoat thickness or d. still provided addnl. levels of phys. barriers to drug elution, resulting in coating system that provided both a chemical and a phys. barrier to control release of a pharmaceutical compound

ST heparin polymer coating antioxidant controlled drug release implant; vascular disease heparin coating controlled drug release implant

IT Medical goods
(anastomosis devices; heparin barrier coating for controlled drug release from implantable devices)

IT Artery, disease
(coronary, restenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)

IT Artery, disease
(coronary; heparin barrier coating for controlled drug release from implantable devices)

IT Anti-inflammatory agents
Antioxidants
Coating materials
Cytotoxic agents
Dissolution
Drugs
Human
(heparin barrier coating for controlled drug release from implantable devices)

IT Fluoropolymers, biological studies
Polymers, biological studies
Polyoxyalkylenes, biological studies
Tocopherols
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)

IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; heparin barrier coating for controlled drug release from implantable devices)

IT Drug delivery systems
(implants, controlled-release; heparin barrier coating for controlled drug release from implantable devices)

IT Prosthetic materials and Prosthetics
(implants; heparin barrier coating for controlled drug release from implantable devices)

IT Medical goods
(perivascular wraps; heparin barrier coating for controlled drug release from implantable devices)

IT Artery, disease
(restenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)

IT Medical goods

(staples; heparin barrier coating for controlled drug release from implantable devices)
IT Artery, disease
(stenosis, treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(stents; heparin barrier coating for controlled drug release from implantable devices)
IT Medical goods
(sutures; heparin barrier coating for controlled drug release from implantable devices)
IT Aneurysm
Atherosclerosis
Blood vessel, disease
(treatment of; heparin barrier coating for controlled drug release from implantable devices)
IT 53123-88-9, Rapamycin
RL: DEV (Device component use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sirolimus; heparin barrier coating for controlled drug release from implantable devices)
IT 9011-17-0, Solef 11008
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 11010, Solef 21508; heparin barrier coating for controlled drug release from implantable devices)
IT 4291-63-8, Cladribine 24280-93-1, Mycophenolic acid
RL: DEV (Device component use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)
IT 362-07-2, Panzem 33419-42-0, Etoposide 58880-19-6, Trichostatin A 123948-87-8, Topotecan
RL: DEV (Device component use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)
IT 50-81-7, L-Ascorbic acid, biological studies 128-37-0, BHT, biological studies 137-66-6, Ascorbyl palmitate 9002-96-4, Vitamin E TPGS 9002-98-6, Polyethylenimine 9003-63-8, Poly(n-butyl methacrylate) 9004-54-0, Dextran, biological studies 9005-49-6, Heparin, biological studies 11114-92-4 12597-68-1, Stainless steel, biological studies 12683-48-6 24937-78-8, EVA 24937-79-9, Solef 1008 25322-68-3, Polyethylene glycol
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(heparin barrier coating for controlled drug release from implantable devices)

L19 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1011933 CAPLUS
DOCUMENT NUMBER: 141:416112
TITLE: Polymeric coatings for increased biocompatibility of implantable medical devices
INVENTOR(S): Falotico, Robert
PATENT ASSIGNEE(S): Cordis Corporation, USA
SOURCE: Eur. Pat. Appl., 66 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1479402	A1	20041124	EP 2004-252956	20040520
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CA 2467797	A1	20041120	CA 2004-2467797	20040520
JP 2005040584	A	20050217	JP 2004-150709	20040520
PRIORITY APPLN. INFO.:			US 2003-471943P P	20030520
			US 2004-848090 A	20040518

AN 2004:1011933 CAPLUS
DN 141:416112
ED Entered STN: 24 Nov 2004
TI Polymeric coatings for increased biocompatibility of implantable medical devices
IN Falotico, Robert
PA Cordis Corporation, USA
SO Eur. Pat. Appl., 66 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61L031-16
ICS A61L031-08
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1479402	A1	20041124	EP 2004-252956	20040520
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CA 2467797	A1	20041120	CA 2004-2467797	20040520
JP 2005040584	A	20050217	JP 2004-150709	20040520
PRAI US 2003-471943P	P	20030520		
US 2004-848090	A	20040518		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1479402	ICM	A61L031-16
	ICS	A61L031-08
	IPCI	A61L0031-16 [ICM,7]; A61L0031-14 [ICM,7,C*]; A61L0031-08 [ICS,7]
	IPCR	A61B0017-06 [I,C*]; A61B0017-06 [I,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-84 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61L0033-00 [I,C*]; A61L0033-00 [I,A]; A61L0033-10 [I,A]
	ECLA	A61L031/10; A61L031/16
CA 2467797	IPCI	A61L0033-00 [ICM,7]; A61K0009-00 [ICS,7]; A61L0031-04 [ICS,7]; A61F0002-06 [ICS,7]; A61L0031-10 [ICS,7]; A61L0031-08 [ICS,7,C*]; A61L0027-14 [ICS,7]; A61L0033-14 [ICS,7]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61K0031-436 [ICS,7]; A61K0031-4353 [ICS,7,C*]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]; A61K0031-727 [ICS,7]; A61K0031-726 [ICS,7,C*]
	IPCR	A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61K0009-00 [I,C*]; A61K0009-00 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61K0031-726 [I,C*]; A61K0031-727

[I,A]; A61L0027-00 [I,C*]; A61L0027-14 [I,A];
A61L0027-54 [I,A]; A61L0031-04 [I,C*]; A61L0031-04
[I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A];
A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61L0033-00
[I,C*]; A61L0033-00 [I,A]; A61L0033-14 [I,A]

JP 2005040584 IPCI A61M0029-02 [ICM,7]; A61B0017-06 [ICS,7]; A61F0002-06 [ICS,7]; A61L0033-00 [ICS,7]; A61L0033-10 [ICS,7]

IPCR A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]

FTERM 4C060/BB11; 4C081/AC06; 4C081/AC09; 4C081/AC10; 4C081/BA02; 4C081/BA03; 4C081/BA05; 4C081/BA12; 4C081/BB05; 4C081/BB06; 4C081/CA131; 4C081/CC01; 4C081/CD112; 4C081/CD172; 4C081/CD18; 4C081/CD19; 4C081/CD21; 4C081/CD22; 4C081/CD25; 4C081/CD26; 4C081/CD27; 4C081/CD29; 4C081/CD31; 4C081/CE02; 4C081/CE03; 4C081/DA03; 4C081/DB07; 4C081/DC03; 4C081/EA03; 4C081/EA04; 4C081/EA06; 4C081/EA12; 4C097/AA14; 4C097/CC03; 4C097/DD01; 4C097/DD09; 4C097/DD14; 4C097/EE06; 4C097/FF03; 4C167/AA44; 4C167/AA45; 4C167/AA50; 4C167/AA53; 4C167/BB06; 4C167/BB26; 4C167/CC08; 4C167/CC22; 4C167/DD01; 4C167/EE08; 4C167/FF05; 4C167/GG04; 4C167/GG12; 4C167/GG16; 4C167/GG22; 4C167/GG24; 4C167/GG26; 4C167/GG32; 4C167/GG42; 4C167/HH08

AB An implantable intraluminal medical device is described. The medical device comprises a substantially tubular member having open ends, a first diameter for insertion into a lumen of a vein and a second diameter for anchoring in the lumen of a vessel. An agent, in therapeutic dosages, is affixed to the substantially tubular structure for promoting endothelialization of the substantially tubular structure. For example, a coating comprising about 20% of a hexafluoropropylene-vinylidene fluoride copolymer (Solef 21508) was applied to stents from a polymer solution in 50:50 N,N-dimethylacetamide/methyl Et ketone. After air drying at 60° for several hours, followed by 60° for 3 h in a <100 mmHg vacuum, clear, smooth, adherent films were obtained. Some coated stents that underwent expansion show some degree of adhesion loss and "tenting" as the film pulls away from the metal. When necessary, modification of coatings may be made, e.g., by addition of plasticizers or the like to the coating composition Films prepared from such coatings may be used to coat stents or other medical devices, particularly where those devices are not susceptible to expansion to the degree of the stents. The coating process was repeated with a coating comprising hexafluoropropylene-vinylidene fluoride copolymer and about 30% of rapamycin. Clear films that would occasionally crack or peal upon expansion of the coated stents resulted. It is believed that inclusion of plasticizers and the like in the coating composition will result in coatings and films for use on stents and other medical devices that are not susceptible to such cracking and peeling.

ST polymer coating drug delivery implant stent biocompatibility; vascular disease drug delivery implant stent polymer coating

IT Angiogenesis
(agents for induction of; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)

IT Blood vessel
(anastomosis; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)

IT Drug delivery systems
(carriers; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)

IT Drug delivery systems
(controlled-release; polymeric coatings for drug delivery and increased

biocompatibility of implantable medical devices)
IT Artery
(coronary; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Prosthetic materials and Prosthetics
(implants; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Dissolution
(of drug, from polymeric coating; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Biocompatibility
Coating materials
(polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Fluoropolymers, biological studies
Polymers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Medical goods
(stents; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT Blood vessel, disease
(treatment of; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT 9011-17-0, Solef 11010
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 21508; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT 9002-84-0, Polytetrafluoroethylene 9005-49-6, Heparin, biological studies 24937-79-9, Solef 1008 53123-88-9, Rapamycin 127464-60-2, Vascular endothelial growth factor
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
IT 7440-44-0, Carbon, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pyrolytic, coating; polymeric coatings for drug delivery and increased biocompatibility of implantable medical devices)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Christian, L; US 20020165608 A1 2002
(2) Ethicon Inc; EP 0970711 A 2000 CAPLUS
(3) Healy, K; US 20020188346 A1 2002
(4) Orbus Medical Technologies Inc; EP 1088564 A 2001 CAPLUS

=> d his

(FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008

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                E "NONOATES"
L1          100 S E3
                E "SDD"
L2          661 S E3
L3            0 S L2 AND L1
L4           17 S "DIAZENIUM DIOLATES"
L5            0 S L4 AND ("POLYMERIC MATRIX")
L6            0 S L1 AND ("POLYMERIC MATRIX")
                E ("SOLEF")
                E "SOLEF"
L7          334 S E3
L8            0 S L7 AND (L1 OR L2)
L9            0 S L7 AND L4
L10         761 S L1 OR L2
L11           0 S L10 AND STENTS
                E STENT
L12        8224 S E3
L13           0 S L12 AND L10
L14          20 S L10 AND POLYMER
L15           1 S L14 AND DEVICE
L16           3 S L7 AND ("IMPLANTABLE DEVICE")
L17          29 S L7 AND STENT
L18           4 S L17 AND ("COATED STENT")
L19           6 DUP REM L18 L16 (1 DUPLICATE REMOVED)

=> s l17 and (l1 or l2)
L20           0 L17 AND (L1 OR L2)

=> s l17 and 4
      5902443 4
L21           8 L17 AND 4

=> dup rem l21 l19
PROCESSING COMPLETED FOR L21
PROCESSING COMPLETED FOR L19
L22          12 DUP REM L21 L19 (2 DUPLICATES REMOVED)
                ANSWERS '1-12' FROM FILE CAPLUS

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L21  ANSWER 1 OF 8  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:228366  CAPLUS
DOCUMENT NUMBER:          146:259122
TITLE:                    Antithrombotic polymeric coating for drug eluting
                          medical devices
INVENTOR(S):              Falotico, Robert; Zhao, Jonathon Z.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 111pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
     US 20070048350       A1    20070301    US 2005-216312          20050831
     EP 1759724           A1    20070307    EP 2006-254407          20060823
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
             BA, HR, MK, YU
```

CA 2557437	A1	20070228	CA 2006-2557437		20060828
JP 2007061632	A	20070315	JP 2006-233889		20060830

PRIORITY APPLN. INFO.: US 2005-216312 A 20050831

AN 2007:228366 CAPLUS

DN 146:259122

ED Entered STN: 02 Mar 2007

TI Antithrombotic polymeric coating for drug eluting medical devices

IN Falotico, Robert; Zhao, Jonathon Z.

PA USA

SO U.S. Pat. Appl. Publ., 111pp.
CODEN: USXXCO

DT Patent

LA English

INCL 424423000; 623001110; 514291000

CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070048350	A1	20070301	US 2005-216312	20050831
EP 1759724	A1	20070307	EP 2006-254407	20060823
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
CA 2557437	A1	20070228	CA 2006-2557437	20060828
JP 2007061632	A	20070315	JP 2006-233889	20060830

PRAI US 2005-216312 A 20050831

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20070048350	INCL	424423000; 623001110; 514291000
	IPCI	A61F0002-06 [I,A]; A61K0031-4745 [I,A]; A61K0031-4738 [I,C*]
	IPCR	A61F0002-06 [I,C]; A61F0002-06 [I,A]; A61K0031-4738 [I,C]; A61K0031-4745 [I,A]
	NCL	424/423.000; 514/291.000; 623/001.110
EP 1759724	IPCI	A61L0031-16 [I,A]; A61L0031-14 [I,C*]; A61L0031-04 [I,A]; A61L0033-00 [I,A]; A61L0033-06 [I,A]
	IPCR	A61L0031-14 [I,C]; A61L0031-16 [I,A]; A61L0031-04 [I,C]; A61L0031-04 [I,A]; A61L0033-00 [I,C]; A61L0033-00 [I,A]; A61L0033-06 [I,A]
	ECLA	A61L033/00H2F; A61L031/16
CA 2557437	IPCI	A61L0027-54 [I,A]; A61L0027-00 [I,C*]
	IPCR	A61L0027-00 [I,C]; A61L0027-54 [I,A]
JP 2007061632	IPCI	A61F0002-84 [I,A]; A61F0002-82 [I,C*]; A61M0036-04 [I,A]; A61M0036-00 [I,C*]; A61F0002-06 [I,A]; A61M0001-14 [I,A]; A61J0015-00 [I,A]; A61F0011-00 [I,A]; A61B0017-08 [I,A]; A61B0017-03 [I,C*]; A61L0029-00 [I,A]; A61L0031-00 [I,A]; A61L0033-10 [I,A]; A61L0033-00 [I,C*]; A61P0007-02 [I,A]; A61P0007-00 [I,C*]; A61P0009-10 [I,A]; A61P0009-14 [I,A]; A61P0009-00 [I,C*]; A61P0029-00 [I,A]; A61P0041-00 [I,A]; A61P0043-00 [I,A]; A61K0031-436 [N,A]; A61K0031-4353 [N,C*]; A61K0031-727 [N,A]; A61K0031-726 [N,C*]
	IPCR	A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61B0017-03 [I,C]; A61B0017-08 [I,A]; A61F0002-06 [I,C]; A61F0002-06 [I,A]; A61F0011-00 [I,C]; A61F0011-00 [I,A]; A61J0015-00 [I,C]; A61J0015-00 [I,A]; A61K0031-4353 [N,C]; A61K0031-436 [N,A]; A61K0031-726 [N,C]; A61K0031-727 [N,A]; A61L0029-00 [I,C];

A61L0029-00 [I,A]; A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61L0033-00 [I,C]; A61L0033-10 [I,A]; A61M0001-14 [I,C]; A61M0001-14 [I,A]; A61M0036-00 [I,C]; A61M0036-04 [I,A]; A61P0007-00 [I,C]; A61P0007-02 [I,A]; A61P0009-00 [I,C]; A61P0009-10 [I,A]; A61P0009-14 [I,A]; A61P0029-00 [I,C]; A61P0029-00 [I,A]; A61P0041-00 [I,C]; A61P0041-00 [I,A]; A61P0043-00 [I,C]; A61P0043-00 [I,A]

ECLA A61L033/00H2F; A61L031/16

FTERM 4C047/NN16; 4C060/CC06; 4C060/CC07; 4C060/MM24; 4C077/AA05; 4C077/DD20; 4C081/AC03; 4C081/AC10; 4C081/BA05; 4C081/BA14; 4C081/BB06; 4C081/CA022; 4C081/CA062; 4C081/CA072; 4C081/CA082; 4C081/CA132; 4C081/CD062; 4C081/CE01; 4C081/CE02; 4C081/CE03; 4C081/CG03; 4C081/CG05; 4C081/CG08; 4C081/DA03; 4C081/DB03; 4C081/DB07; 4C081/DC03; 4C081/DC04; 4C081/DC05; 4C081/EA02; 4C081/EA03; 4C081/EA06; 4C086/AA01; 4C086/AA02; 4C086/CB22; 4C086/EA27; 4C086/MA03; 4C086/MA05; 4C086/MA67; 4C086/NA05; 4C086/NA10; 4C086/NA12; 4C086/ZA36; 4C086/ZA44; 4C086/ZA45; 4C086/ZA54; 4C086/ZB11; 4C086/ZC02; 4C086/ZC51; 4C086/ZC75; 4C097/AA01; 4C097/AA15; 4C097/AA25; 4C097/BB01; 4C097/CC03; 4C097/DD01; 4C097/EE01; 4C097/EE02; 4C097/EE03; 4C097/FF01; 4C097/FF10; 4C167/AA42; 4C167/AA45; 4C167/AA50; 4C167/AA51; 4C167/AA55; 4C167/BB05; 4C167/BB06; 4C167/CC07; 4C167/CC08; 4C167/CC09; 4C167/CC12; 4C167/CC13; 4C167/CC14; 4C167/CC19; 4C167/CC23; 4C167/CC27; 4C167/DD01; 4C167/EE08; 4C167/GG02; 4C167/GG06; 4C167/GG16

AB Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds., such as heparin and rapamycin may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. Thus, stents were coated with a composition containing an elastomeric 60.6:39.4 vinylidene fluoride/HFP copolymer (Fluorel FC 2261Q) and about 9, 30, and 50 weight% of rapamycin. Coatings comprising about 9 and 30 weight% rapamycin provided white, adherent, tough films that expanded without incident on the stent . Inclusion of 50 weight% drug, in the same manner, resulted in some loss of adhesion upon expansion. Stents comprising about 750 μg of coating containing 30 weight% rapamycin showed drug release as a function of time controlled by loading of drug in the film.

ST polymer coating antithrombotic implant medical device drug release

IT Medical goods
Prosthetic materials and Prosthetics
(antithrombogenic; antithrombotic polymeric coating for drug eluting medical devices)

IT Anti-inflammatory agents
Anticoagulants
Coating materials
Combination chemotherapy

Cytotoxic agents
Dissolution
Drugs
Human
Pharmaceutical implants
(antithrombotic polymeric coating for drug eluting medical devices)

IT Fluoropolymers, biological studies
Polymers, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antithrombotic polymeric coating for drug eluting medical devices)

IT Pharmaceutical implants
(controlled-release; antithrombotic polymeric coating for drug eluting medical devices)

IT Fluoro rubber
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; antithrombotic polymeric coating for drug eluting medical devices)

IT Prosthetic materials and Prosthetics
(implants, antithrombotic; antithrombotic polymeric coating for drug eluting medical devices)

IT Controlled-release drug delivery systems
(implants; antithrombotic polymeric coating for drug eluting medical devices)

IT Coronary restenosis
(prevention of; antithrombotic polymeric coating for drug eluting medical devices)

IT Medical goods
(stents; antithrombotic polymeric coating for drug eluting medical devices)

IT 24937-79-9, Poly(vinylidene fluoride)
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 1008; antithrombotic polymeric coating for drug eluting medical devices)

IT 9011-17-0, Hexafluoropropene-vinylidene fluoride copolymer
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 11008, Solef 11010, Solef 21508; antithrombotic polymeric coating for drug eluting medical devices)

IT 362-07-2, Panzem 4291-63-8, Cladribine 9005-49-6, Heparin, biological studies 24280-93-1, Mycophenolic acid 33419-42-0, Etoposide 53123-88-9, Rapamycin 58880-19-6, Trichostatin A 123948-87-8, Topotecan
RL: PAC (Pharmacological activity); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antithrombotic polymeric coating for drug eluting medical devices)

IT 9003-39-8, Polyvinylpyrrolidone 9003-63-8, Poly(n-butylmethacrylate) 24937-78-8, Poly(ethylene-co-vinyl acetate)
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antithrombotic polymeric coating for drug eluting medical devices)

L21 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:364889 CAPLUS
DOCUMENT NUMBER: 144:398418
TITLE: Implantable medical devices comprising polymeric components
INVENTOR(S): Sahatjian, Ronald A.; Tan, Francisca; Mather, Patrick T.; Liu, Changdeng; Campo, Cheryl J.

PATENT ASSIGNEE(S): Boston Scientific Scimed, Inc., USA; University of Connecticut
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006041767	A2	20060420	WO 2005-US35444	20051005
WO 2006041767	A3	20070125		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2005294569	A1	20060420	AU 2005-294569	20051005
CA 2583191	A1	20060420	CA 2005-2583191	20051005
EP 1824412	A2	20070829	EP 2005-810344	20051005
R: DE, FR, GB, IE, NL				

PRIORITY APPLN. INFO.:	US 2004-958435	A	20041005
	WO 2005-US35444	W	20051005

AN 2006:364889 CAPLUS
DN 144:398418
ED Entered STN: 21 Apr 2006
TI Implantable medical devices comprising polymeric components
IN Sahatjian, Ronald A.; Tan, Francisca; Mather, Patrick T.; Liu, Changdeng; Campo, Cheryl J.
PA Boston Scientific Scimed, Inc., USA; University of Connecticut
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38, 39
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006041767	A2	20060420	WO 2005-US35444	20051005
WO 2006041767	A3	20070125		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

AU	2005294569	A1	20060420	AU 2005-294569	20051005
CA	2583191	A1	20060420	CA 2005-2583191	20051005
EP	1824412	A2	20070829	EP 2005-810344	20051005
	R: DE, FR, GB, IE, NL				
PRAI US	2004-958435	A	20041005		
WO	2005-US35444	W	20051005		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2006041767	IPCI	A61F0002-00 [I,A]; A61F0002-00 [I,C]; A61F0002-00 [I,A]
	IPCR	A61F0002-00 [I,C]; A61F0002-00 [I,A]
	ECLA	A61F002/90B; A61F002/88
AU 2005294569	IPCI	A61F0002-00 [I,C]; A61F0002-00 [I,A]
	IPCR	A61F0002-00 [I,C]; A61F0002-00 [I,A]
	ECLA	A61F002/90B; A61F002/88; K61F; K61F; K61F; K61F; K61F
CA 2583191	IPCI	A61F0002-00 [I,A]
	IPCR	A61F0002-00 [I,C]; A61F0002-00 [I,A]
EP 1824412	IPCI	A61F0002-00 [I,A]
	IPCR	A61F0002-00 [I,C]; A61F0002-00 [I,A]
	ECLA	A61F002/90B; A61F002/88; A61M025/00G1; C08G018/38N; C08G018/42H3G; C08G018/48F; K61F; K61F; K61F; K61F; K61F

AB A medical device includes a balloon catheter having an expandable member, e.g., an inflatable balloon, at its distal end and a stent or other endoprosthesis. The stent is, for example, an apertured tubular member formed of a polymer and is assembled about the balloon. The stent has an initial diameter for delivery into the body and can be expanded to a larger diameter by inflating the balloon. Thus, a stent with a flared end of the coil was produced from a 56:24:20 mixture of polyvinyl acetate/poly(vinylidine fluoride)/poly(Me methacrylate) (PVAc/PVDF/PMMA) by extrusion and annealing.

ST balloon catheter polymer stent endoprosthesis implant

IT Polyesters, biological studies
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(caprolactone-based; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Medical goods
(catheters; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Prosthetic materials and Prosthetics
(endoprosthetic; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Biliary tract
Bronchi
Esophagus
Lung
Thermal conductors
Trachea (anatomical)
Ureter
Urethra
(implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Fluoropolymers, biological studies
Polyamides, biological studies
Polyenes
Polymers, biological studies
Polyolefin rubber
Polyurethanes, biological studies
Styrene-butadiene rubber, biological studies
Synthetic rubber, biological studies

RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Polymer blends
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Prosthetic materials and Prosthetics
(implants; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Isoprene rubber, biological studies
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of trans-1,4-configuration; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Silsesquioxanes
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyurethane-; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Imaging agents
(radiog. contrast agents; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Polyurethanes, biological studies
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(silsesquioxane-; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Medical goods
(stents; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Synthetic rubber, biological studies
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(styrene copolymer, block; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT Synthetic rubber, biological studies
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(styrene copolymer; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT 9011-14-7, Polymethyl methacrylate
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Plexiglas V 045; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT 24937-79-9, Poly(vinylidine fluoride)
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Solef 1010; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

IT 883280-73-7
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable tubular endoprosthesis comprising ballAoon catheter and polymer stent)

IT 100-42-5D, Styrene, polymers, block 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-20-7, Polyvinyl acetate 9003-49-0, Poly(n-butyl acrylate) 24980-41-4, Polycaprolactone 25038-76-0,

Polynorbornene 25248-42-4, Polycaprolactone 25267-51-0, Polycyclooctene
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable tubular endoprosthesis comprising balloon catheter and polymer stent)
IT 7727-43-7, Barium sulfate 16508-95-5, Bismuth carbonate
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(implantable tubular endoprosthesis comprising balloon catheter and polymer stent)
IT 9003-31-0D, of trans-1,4-configuration
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(isoprene rubber; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)
IT 9003-55-8
RL: DEV (Device component use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(styrene-butadiene rubber; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)
IT 10043-11-5, Boron nitride, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thermal conductor; implantable tubular endoprosthesis comprising balloon catheter and polymer stent)

L21 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1125557 CAPLUS
DOCUMENT NUMBER: 143:393133
TITLE: The use of antioxidants to prevent oxidation and reduce drug degradation in drug eluting medical devices
INVENTOR(S): Fennimore, Roy R., Jr.
PATENT ASSIGNEE(S): Cordis Corporation, USA
SOURCE: Eur. Pat. Appl., 126 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1586338	A2	20051019	EP 2005-252322	20050414
EP 1586338	A3	20080326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
US 20050232964	A1	20051020	US 2004-823834	20040414
CA 2504258	A1	20051014	CA 2005-2504258	20050414

PRIORITY APPLN. INFO.: US 2004-823834 A 20040414
AN 2005:1125557 CAPLUS
DN 143:393133
ED Entered STN: 20 Oct 2005
TI The use of antioxidants to prevent oxidation and reduce drug degradation in drug eluting medical devices
IN Fennimore, Roy R., Jr.
PA Cordis Corporation, USA
SO Eur. Pat. Appl., 126 pp.
CODEN: EPXXDW

DT Patent
LA English
IC ICM A61L031-16
ICS A61L031-14
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1586338	A2	20051019	EP 2005-252322	20050414
	EP 1586338	A3	20080326		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
	US 20050232964	A1	20051020	US 2004-823834	20040414
	CA 2504258	A1	20051014	CA 2005-2504258	20050414
PRAI	US 2004-823834	A	20040414		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1586338	ICM	A61L031-16
	ICS	A61L031-14
	IPCI	A61L0031-16 [I,A]; A61L0031-14 [I,A]
	IPCR	A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61L0031-14 [I,C*]; A61L0031-14 [I,A]; A61L0031-16 [I,A]
	ECLA	A61L031/14D; A61L031/16
US 20050232964	IPCR	A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61L0031-14 [I,C*]; A61L0031-14 [I,A]; A61L0031-16 [I,A]
	NCL	424/423.000; 514/291.000; 514/474.000
CA 2504258	IPCI	A61L0027-54 [ICM,7]; A61M0037-00 [ICS,7]; A61F0002-06 [ICS,7]; A61K0047-10 [ICS,7]; A61K0047-22 [ICS,7]; A61L0027-34 [ICS,7]; A61L0027-00 [ICS,7,C*]; A61K0031-436 [ICS,7]; A61K0031-4353 [ICS,7,C*]
	IPCR	A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61L0031-14 [I,C*]; A61L0031-14 [I,A]; A61L0031-16 [I,A]
	ECLA	A61L031/14D; A61L031/16

AB The present invention relates to the local administration of drug/drug combinations for the prevention and treatment of vascular disease, and more particularly to intraluminal medical devices for the local delivery of drug/drug combinations for the prevention and treatment of vascular disease caused by injury. Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds. may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. The drugs, agents, and/or compds. may also be utilized to treat specific diseases, including vulnerable plaque. Therapeutic agents may also be delivered to the region of a disease site. In regional delivery, liquid formulations may be desirable to increase the efficacy and deliverability of the particular drug. Also, the devices may be modified to promote endothelialization. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. In addition, the devices utilized to deliver the implantable medical devices may be modified to reduce the potential for damaging the implantable medical device during deployment. Medical devices include stents, grafts, anastomotic

devices, perivascular wraps, sutures and staples. In addition, various polymer combinations may be utilized to control the elution rates of the therapeutic drugs, agents and/or compds. from the implantable medical devices. In each of these instances, antioxidants are utilized to prolong product integrity. A drug eluting medical device comprises (i) an implantable intraluminal structure; (ii) a polymeric solution; (iii) a pharmaceutically active agent, e.g., rapamycin, in therapeutic dosages, incorporated into the polymeric solution, the resulting mixture being affixed to at least a portion of the implantable intraluminal structure; and (iv) a stabilizing agent, i.e., an antioxidant, such as BTH, tocopherols, and ascorbic acid and its derivs., incorporated into the resulting mixture to substantially hinder degradation of the pharmaceutically active agent through oxidation Thus, an aqueous solution of Sirolimus and a polymer comprising 0.082%
tocopherols was stable after 4 wk storage at 60° showing
a drug content of 97.0% of the label claim.

ST antioxidant polymer medical coating drug degrdn vascular disease

IT Medical goods
(catheters; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Artery, disease
(coronary, restenosis; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Prosthetic materials and Prosthetics
(implants; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Artery, disease
(restenosis; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Medical goods
(staples; use of antioxidants to prevent oxidation and reduce drug degradation
in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Artery, disease
(stenosis; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Medical goods
(stents; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Medical goods
(sutures; use of antioxidants to prevent oxidation and reduce drug degradation
in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Anti-inflammatory agents
Antioxidants
Atherosclerosis
Blood vessel, disease

Coating materials
Cytotoxic agents
Decomposition
Drug delivery systems
Drugs
Human
(use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT Fluoropolymers, biological studies
Polymers, biological studies
Tocopherols
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT 53123-88-9, Rapamycin
RL: DEV (Device component use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sirolimus; use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT 362-07-2, Panzem 4291-63-8, Cladribine 58880-19-6, Trichostatin A
RL: DEV (Device component use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

IT 50-81-7, Ascorbic acid, biological studies 128-37-0, Butylated hydroxytoluene, biological studies 137-66-6, Ascorbyl palmitate 9002-96-4, TPGS 9003-63-8, Poly(butyl methacrylate) 9011-17-0, Solef 21508 24937-79-9, Solef 1008 37047-59-9, Butyl methacrylate-ethylene-vinyl acetate copolymer
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(use of antioxidants to prevent oxidation and reduce drug degradation in drug-eluting medical devices for prevention and treatment of vascular diseases)

L21 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2005:1026490 CAPLUS
DOCUMENT NUMBER:	143:312136
TITLE:	Phosphoryl choline coating compositions for implants
INVENTOR(S):	Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni
PATENT ASSIGNEE(S):	USA
SOURCE:	U.S. Pat. Appl. Publ., 15 pp. CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050208093	A1	20050922	US 2004-807362	20040322
WO 2005092406	A1	20051006	WO 2005-US8844	20050317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

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            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
            SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
            EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
            RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
    EP 1732621          A1    20061220    EP 2005-728269          20050317
        R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
    JP 2007530733       T     20071101    JP 2007-505015          20050317
PRIORITY APPLN. INFO.:                    US 2004-807362       A  20040322
                                          WO 2005-US8844       W  20050317

AN   2005:1026490  CAPLUS
DN   143:312136
ED   Entered STN:  23 Sep 2005
TI   Phosphoryl choline coating compositions for implants
IN   Glauser, Thierry; Pacetti, Stephen Dirk; Hossainy, Syed F. a.; Ding, Ni
PA   USA
SO   U.S. Pat. Appl. Publ., 15 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  A61K031-785
     ICS  C08G063-48; C08G063-91; A61K031-765
INCL 424423000; 525054100; 525054200; 424078300
CC   63-8 (Pharmaceuticals)
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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PI   US 20050208093       A1    20050922    US 2004-807362          20040322
     WO 2005092406        A1    20051006    WO 2005-US8844          20050317
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     EP 1732621          A1    20061220    EP 2005-728269          20050317
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
     JP 2007530733       T     20071101    JP 2007-505015          20050317
PRAI US 2004-807362      A     20040322
     WO 2005-US8844      W     20050317
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 20050208093  ICM    A61K031-785
                 ICS    C08G063-48; C08G063-91; A61K031-765
                 INCL   424423000; 525054100; 525054200; 424078300
                 IPCR   A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08
                        [I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*];
                        C08G0063-91 [I,A]
                 NCL    424/423.000; 424/078.300; 525/054.100; 525/054.200
 WO 2005092406   IPCR   A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-08
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		[I,C*]; A61L0031-10 [I,A]; C08G0063-00 [I,C*]; C08G0063-91 [I,A]
EP 1732621	IPCI	A61L0031-10 [I,A]; A61L0031-08 [I,C*]; A61L0027-34 [I,A]; A61L0027-00 [I,C*]; C08G0063-91 [I,A]; C08G0063-00 [I,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; C08G0063-00 [I,C]; C08G0063-91 [I,A]
	ECLA	A61L027/34+C08L33/14; A61L031/10+C08L33/14
JP 2007530733	IPCI	C08G0063-91 [I,A]; C08G0063-00 [I,C*]; C08F0220-10 [I,A]; C08F0220-00 [I,C*]; C08F0230-02 [I,A]; C08F0230-00 [I,C*]; A61L0031-00 [I,A]; A61L0033-10 [I,A]; A61L0033-00 [I,C*]
	IPCR	C08G0063-00 [I,C]; C08G0063-91 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0033-00 [I,C]; A61L0033-10 [I,A]; C08F0220-00 [I,C]; C08F0220-10 [I,A]; C08F0230-00 [I,C]; C08F0230-02 [I,A]
	FTERM	4C081/AC06; 4C081/BA02; 4C081/BA05; 4C081/BB06; 4C081/CA011; 4C081/CA151; 4C081/CE02; 4C081/CE03; 4C081/DC03; 4C081/DC04; 4J029/AA01; 4J029/AA02; 4J029/AC02; 4J029/AE06; 4J029/BA02; 4J029/EA02; 4J029/EG05; 4J029/EH01; 4J029/EH02; 4J029/EH03; 4J029/KH01; 4J100/AJ02P; 4J100/AL03R; 4J100/AL04P; 4J100/AL08P; 4J100/AL08Q; 4J100/AL09P; 4J100/AQ08P; 4J100/BA03P; 4J100/BA08P; 4J100/BA08Q; 4J100/BA32Q; 4J100/BA65Q; 4J100/CA05; 4J100/JA01; 4J100/JA51

AB A polymer comprising phospholipid moieties and a biocompatible polymer backbone, a composition comprising the polymer and optionally a bioactive agent, an implantable devices such as a DES comprising thereon a coating comprising the polymer and optionally a bioactive agent, and a method of using the device for the treatment of a disorder in a human being are provided. 2-Methhyacryloyloxyethyl phosphorylcholine-Bu methacrylate-PEG acrylate copolymer was prepared and used in coating a stent. A 2nd composition comprised Solef and Everolimus which was then coated on the stent followed by a 3rd composition containing the polymer.

ST implant coating phosphorylcholine polymer

IT Polycarbonates, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(imino-, polyamide-; phosphorylcholine coating compns. for implants)

IT Prosthetic materials and Prosthetics
(implants; phosphorylcholine coating compns. for implants)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorus-containing; phosphorylcholine coating compns. for implants)

IT Anticoagulants
Blood vessel, disease
Human
Medical goods
(phosphorylcholine coating compns. for implants)

IT Polyamides, biological studies
Polycarbonates, biological studies
Polyesters, biological studies
Polyolefins
Polyurethanes, biological studies
Thrombomodulin
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phosphorylcholine coating compns. for implants)
IT Fluoropolymers, biological studies
Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT Polyethers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-; phosphorylcholine coating compns. for implants)
IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyether-; phosphorylcholine coating compns. for implants)
IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyiminocarbonate-; phosphorylcholine coating compns. for implants)
IT Medical goods
(stents; phosphorylcholine coating compns. for implants)
IT 864970-59-2P
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 9003-63-8, Poly(butyl methacrylate)
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(phosphorylcholine coating compns. for implants)
IT 629-11-8, 1,6-Hexanediol
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphorylcholine coating compns. for implants)
IT 2987-06-6P, 4-Benzyloxycyclohexanone 13482-22-9P, 4-Hydroxycyclohexanone 168208-62-6P 864971-11-9DP, deprotected, reaction products with phosphorylcholine 864971-11-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(phosphorylcholine coating compns. for implants)
IT 50-02-2, Dexamethasone 50-28-2, Estradiol, biological studies 50-78-2, Aspirin 2226-96-2, TEMPOL 8001-27-2, Hirudin 9002-85-1, Polyvinylidene chloride 9002-86-2, Pvc 9002-89-5, Polyvinyl alcohol) 9003-09-2, Poly(vinyl methyl ether) 9003-20-7, Polyvinyl acetate 9003-27-4, Polyisobutylene 9003-39-8, Poly(N-vinylpyrrolidinone) 9003-53-6D, Polystyrene, sulfonated 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, Abs 9004-54-0D, Dextran, sulfonated 9004-61-9, Hyaluronic acid 9005-49-6, Heparin, biological studies 14691-88-4, 4-Amino-TEMPO 24937-78-8, Eva 24937-79-9, Polyvinylidene fluoride 24938-43-0, Poly(3-hydroxypropionic acid) SRU 25014-41-9, Polyacrylonitrile 25038-54-4, Polycaprolactam, biological studies 25067-34-9, Eval 25101-13-7, Ethylene-methyl methacrylate copolymer 25122-41-2, Clobetasol 25322-68-3, Peg 25718-95-0, Poly(3-hydroxypropionic acid) 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 26780-50-7, Glycolide-lactide copolymer 28728-97-4, Poly[oxy(1-oxo-1,4-butanediyl)] 29223-92-5 31621-87-1, Polydioxanone 31759-58-7 31852-84-3, Poly(trimethylene carbonate) 32131-17-2, Nylon 66, biological studies 33069-62-4, Paclitaxel 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) 53123-88-9, Sirolimus 85637-73-6, Atrial natriuretic peptide 90522-12-6, Poly(N-propylmethacrylamide) 104987-11-3, Tacrolimus

113883-69-5, Glycolic acid-trimethylene carbonate copolymer 114959-05-6
141455-97-2 141655-80-3, 3-Hydroxybutyric acid-valeric acid copolymer
159351-69-6, Everolimus 159351-72-1, 40-O-(3-Hydroxypropyl)-rapamycin
159351-77-6, 40-O-[2-(2-Hydroxyethoxy)ethyl]-rapamycin 219630-20-3,
Poly[oxy(1-methyl-4-oxo-1,4-butanediyl)]
221389-50-0, Poly[oxy(1-ethyl-4-oxo-1,4-butanediyl)]
221877-54-9, Abt-578 251634-03-4 331686-32-9 334932-62-6
454473-92-8 698393-66-7, Styrene-isobutylene triblock copolymer
781658-18-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phosphorylcholine coating compns. for implants)

L21 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:823364 CAPLUS
DOCUMENT NUMBER: 143:216762
TITLE: Local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury
INVENTOR(S): Falotico, Robert; Parry, Tom Jay; Zhao, Jonathon Z.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 87 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050182485	A1	20050818	US 2004-780596	20040218
CA 2497216	A1	20050818	CA 2005-2497216	20050216
EP 1570871	A1	20050907	EP 2005-250908	20050217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2005253959	A	20050922	JP 2005-40910	20050217

PRIORITY APPLN. INFO.: US 2004-780596 A 20040218
AN 2005:823364 CAPLUS
DN 143:216762
ED Entered STN: 19 Aug 2005
TI Local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury
IN Falotico, Robert; Parry, Tom Jay; Zhao, Jonathon Z.
PA USA
SO U.S. Pat. Appl. Publ., 87 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61F002-06
ICS A61F002-02
INCL 623001420; 424424000
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050182485	A1	20050818	US 2004-780596	20040218
	CA 2497216	A1	20050818	CA 2005-2497216	20050216
	EP 1570871	A1	20050907	EP 2005-250908	20050217
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				

BA, HR, IS, YU

JP	2005253959	A	20050922	JP 2005-40910	20050217
PRAI US	2004-780596	A	20040218		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050182485	ICM	A61F002-06
	ICS	A61F002-02
	INCL	623001420; 424424000
	IPCI	A61F0002-06 [ICM,7]; A61F0002-02 [ICS,7]
	IPCR	A61B0017-00 [I,C*]; A61B0017-00 [I,A]; A61B0017-03 [I,C*]; A61B0017-11 [I,A]; A61B0017-12 [I,C*]; A61B0017-12 [I,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61K0031-7042 [I,C*]; A61K0031-7076 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61L0033-00 [I,C*]; A61L0033-00 [I,A]; A61L0033-10 [I,A]; A61P0007-00 [I,C*]; A61P0007-02 [I,A]; A61P0009-00 [I,C*]; A61P0009-10 [I,A]
	NCL	623/001.420; 424/424.000
	ECLA	A61L031/16; A61L031/10
CA 2497216	IPCI	A61L0031-12 [ICM,7]; A61L0017-00 [ICS,7]; A61L0031-10 [ICS,7]; A61L0031-08 [ICS,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61K0031-436 [ICS,7]; A61K0031-4353 [ICS,7,C*]; A61L0027-44 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]; A61K0031-7076 [ICS,7]; A61K0031-7042 [ICS,7,C*]
	IPCR	A61B0017-00 [I,C*]; A61B0017-00 [I,A]; A61B0017-03 [I,C*]; A61B0017-11 [I,A]; A61B0017-12 [I,C*]; A61B0017-12 [I,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61K0031-7042 [I,C*]; A61K0031-7076 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61L0033-00 [I,C*]; A61L0033-00 [I,A]; A61L0033-10 [I,A]; A61P0007-00 [I,C*]; A61P0007-02 [I,A]; A61P0009-00 [I,C*]; A61P0009-10 [I,A]
	ECLA	A61L031/16; A61L031/10
EP 1570871	IPCI	A61L0031-16 [ICM,7]; A61L0031-14 [ICM,7,C*]
	IPCR	A61B0017-00 [I,C*]; A61B0017-00 [I,A]; A61B0017-03 [I,C*]; A61B0017-11 [I,A]; A61B0017-12 [I,C*]; A61B0017-12 [I,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-82 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61K0031-7042 [I,C*]; A61K0031-7076 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61L0033-00 [I,C*]; A61L0033-00 [I,A]; A61L0033-10 [I,A]; A61P0007-00 [I,C*]; A61P0007-02 [I,A]; A61P0009-00 [I,C*]; A61P0009-10 [I,A]
	ECLA	A61L031/16; A61L031/10
JP 2005253959	IPCI	A61L0031-00 [ICM,7]; A61B0017-00 [ICS,7]; A61B0017-11 [ICS,7]; A61B0017-03 [ICS,7,C*]; A61B0017-12 [ICS,7]; A61F0002-06 [ICS,7]; A61K0031-436 [ICS,7];

A61K0031-4353 [ICS,7,C*]; A61K0031-7076 [ICS,7];
A61K0031-7042 [ICS,7,C*]; A61L0017-00 [ICS,7];
A61L0033-00 [ICS,7]; A61L0033-10 [ICS,7]; A61M0029-00
[ICS,7]; A61P0007-02 [ICS,7]; A61P0007-00 [ICS,7,C*];
A61P0009-10 [ICS,7]; A61P0009-00 [ICS,7,C*]
IPCR A61L0031-14 [I,C*]; A61L0031-16 [I,A]
FTERM 4C060/CC03; 4C060/CC06; 4C060/DD03; 4C060/DD13;
4C060/DD16; 4C060/DD38; 4C060/MM25; 4C081/AC02;
4C081/AC03; 4C081/AC06; 4C081/AC10; 4C081/BA05;
4C081/BB02; 4C081/BB05; 4C081/BB06; 4C081/CA082;
4C081/CA131; 4C081/CD062; 4C081/CE02; 4C081/CE03;
4C081/DA01; 4C081/DA03; 4C081/DC04; 4C081/DC05;
4C081/EA06; 4C086/AA01; 4C086/AA02; 4C086/CB22;
4C086/EA11; 4C086/EA18; 4C086/MA03; 4C086/MA05;
4C086/MA67; 4C086/NA12; 4C086/NA14; 4C086/ZA36;
4C086/ZA40; 4C086/ZA54; 4C097/AA15; 4C097/BB01;
4C097/CC03; 4C097/DD01; 4C097/EE03; 4C097/EE06;
4C097/FF01; 4C167/AA50; 4C167/AA52; 4C167/BB06;
4C167/BB26; 4C167/CC09; 4C167/DD01; 4C167/EE07;
4C167/GG02; 4C167/GG04; 4C167/GG16; 4C167/HH08

AB Medical devices, and in particular implantable medical devices, may be coated to minimize or substantially eliminate a biol. organism's reaction to the introduction of the medical device to the organism. The medical devices may be coated with any number of biocompatible materials. Therapeutic drugs, agents or compds. may be mixed with the biocompatible materials and affixed to at least a portion of the medical device. These therapeutic drugs, agents or compds. may also further reduce a biol. organism's reaction to the introduction of the medical device to the organism. In addition, these therapeutic drugs, agents and/or compds. may be utilized to promote healing, including the formation of blood clots. Also, the devices may be modified to promote endothelialization. Various materials and coating methodologies may be utilized to maintain the drugs, agents or compds. on the medical device until delivered and positioned. In addition, the devices utilized to deliver the implantable medical devices may be modified to reduce the potential for damaging the implantable medical device during deployment. Medical devices include stents , grafts, anastomotic devices, perivascular wraps, sutures and staples. In addition, various polymer combinations may be utilized to control the elution rates of the therapeutic drugs, agents and/or compds. from the implantable medical devices. Two stents coated with a film made of hexafluoropropene-vinylidene fluoride copolymer (60.6/39.4) with thirty percent rapamycin were deployed in each rabbits, one in each iliac artery. Release of rapamycin from the stents was studied.

ST vascular delivery cladribine rapamycin restenosis injury

IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Prosthetic materials and Prosthetics
(implants; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Blood vessel, disease
(injury; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Medical goods
(local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Acrylic polymers, biological studies
Fluoropolymers, biological studies

RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Artery, disease
(restenosis; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Medical goods
(stents; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT Injury
(vascular; local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT 9011-17-0, Solef 11010 24937-79-9, Solef 1008
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

IT 4291-63-8, Cladribine 53123-88-9, Rapamycin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(local vascular delivery of cladribine in combination with rapamycin to prevent restenosis following vascular injury)

L21 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2005:523361 CAPLUS
DOCUMENT NUMBER:	143:65552
TITLE:	Temperature-controlled crimping of polymeric medical device
INVENTOR(S):	Gale, David C.; Huang, Bin; Abbate, Anthony; Pacetti, Stephen D.
PATENT ASSIGNEE(S):	Advanced Cardiovascular Systems, Inc., USA
SOURCE:	PCT Int. Appl., 59 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053937	A1	20050616	WO 2004-US40121	20041130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20050118344	A1	20050602	US 2003-725698	20031201
EP 1706254	A1	20061004	EP 2004-812597	20041130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007512908	T	20070524	JP 2006-542693	20041130
PRIORITY APPLN. INFO.:			US 2003-725698 A	20031201
			US 2004-957022 A	20041001
			WO 2004-US40121 W	20041130

AN 2005:523361 CAPLUS
DN 143:65552
ED Entered STN: 17 Jun 2005
TI Temperature-controlled crimping of polymeric medical device
IN Gale, David C.; Huang, Bin; Abbate, Anthony; Pacetti, Stephen D.
PA Advanced Cardiovascular Systems, Inc., USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM B29C067-00
ICS B29B013-02; A61F002-06
CC 63-7 (Pharmaceuticals)
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005053937	A1	20050616	WO 2004-US40121	20041130
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 20050118344	A1	20050602	US 2003-725698	20031201
	EP 1706254	A1	20061004	EP 2004-812597	20041130
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	JP 2007512908	T	20070524	JP 2006-542693	20041130
PRAI	US 2003-725698	A	20031201		
	US 2004-957022	A	20041001		
	WO 2004-US40121	W	20041130		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005053937	ICM	B29C067-00
	ICS	B29B013-02; A61F002-06
	IPCI	B29C0067-00 [ICM,7]; B29B0013-02 [ICS,7]; B29B0013-00 [ICS,7,C*]; A61F0002-06 [ICS,7]
	IPCR	A61F0002-06 [I,C*]; A61F0002-06 [I,A]; B29B0013-00 [I,C*]; B29B0013-02 [I,A]; B29C0035-08 [N,C*]; B29C0035-08 [N,A]; B29C0067-00 [I,C*]; B29C0067-00 [I,A]
	ECLA	B29B013/02D2; K61F; L29C; L29C
US 20050118344	IPCI	B05D0001-02 [ICM,7]
	IPCR	A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-14 [I,A]; B29B0013-00 [I,C*]; B29B0013-02 [I,A]; B29C0035-08 [N,C*]; B29C0035-08 [N,A]
	NCL	427/422.000
	ECLA	A61F002/06S2B; A61L031/10; A61L031/14; B29B013/02D2
EP 1706254	IPCI	B29C0067-00 [ICM,7]
	ECLA	B29B013/02D2
JP 2007512908	IPCI	A61L0033-00 [I,A]; A61L0031-00 [I,A]; A61K0045-00 [I,A]; A61P0035-00 [I,A]; A61P0029-00 [I,A]; A61P0007-02 [I,A]; A61P0007-04 [I,A]; A61P0007-00 [I,C*]; A61P0031-04 [I,A]; A61P0031-00 [I,C*];

A61P0039-06 [I,A]; A61P0039-00 [I,C*]; A61F0002-84 [I,A]; A61F0002-82 [I,C*]

IPCR A61L0033-00 [I,C]; A61L0033-00 [I,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61K0045-00 [I,C]; A61K0045-00 [I,A]; A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61P0007-00 [I,C]; A61P0007-02 [I,A]; A61P0007-04 [I,A]; A61P0029-00 [I,C]; A61P0029-00 [I,A]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; A61P0035-00 [I,C]; A61P0035-00 [I,A]; A61P0039-00 [I,C]; A61P0039-06 [I,A]; B29B0013-00 [I,C*]; B29B0013-02 [I,A]; B29C0035-08 [N,C*]; B29C0035-08 [N,A]; B29C0067-00 [I,C*]; B29C0067-00 [I,A]

FTERM 4C081/AC06; 4C081/AC08; 4C081/AC10; 4C081/BB07; 4C081/CA042; 4C081/CA052; 4C081/CA082; 4C081/CA092; 4C081/CA102; 4C081/CA152; 4C081/CA162; 4C081/CA192; 4C081/CA212; 4C081/CA232; 4C081/CA252; 4C081/CA272; 4C081/CD012; 4C081/CD042; 4C081/CD122; 4C081/CE02; 4C081/DA03; 4C084/AA17; 4C084/MA34; 4C084/NA10; 4C084/ZA531; 4C084/ZA541; 4C084/ZB111; 4C084/ZB261; 4C084/ZB351; 4C084/ZC021; 4C167/AA05; 4C167/AA53; 4C167/AA55; 4C167/AA56; 4C167/BB06; 4C167/BB18; 4C167/BB19; 4C167/FF01; 4C167/FF05; 4C167/GG02; 4C167/GG16; 4C167/GG31; 4C167/HH01; 4C167/HH17

AB This disclosure describes a method for crimping a polymeric stent onto a catheter for percutaneous transluminal coronary angioplasty or other intraluminal interventions. The method comprises crimping the stent onto a catheter when the polymer is at a target temperature other than ambient temperature The polymer can optionally comprise drug(s). For example, a Tetra stent was coated with ethylene-vinyl alc. copolymer (Eval EC-151A) primer layer and Elast-Eon 80A topcoat layer. The obtained stent was crimped onto a 13 mm Tetra catheter.

ST stent polymer temp controlled crimping catheter

IT Medical goods
(catheters; temperature-controlled crimping of polymeric stent onto catheter)

IT Carboxylic acids, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hydroxy; temperature-controlled crimping of polymeric stent onto catheter)

IT Polycarbonates, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(imino-, polyamide-; temperature-controlled crimping of polymeric stent onto catheter)

IT Drug delivery systems
(implants; temperature-controlled crimping of polymeric stent onto catheter)

IT Mitosis
(inhibitors; temperature-controlled crimping of polymeric stent containing drug onto catheter)

IT Polyethers, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(ortho ester group-containing; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyesters, biological studies

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(phosphorus-containing; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyamides, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(poly(amino acids); temperature-controlled crimping of polymeric stent onto catheter)

IT Polyesters, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyamide-; temperature-controlled crimping of polymeric stent onto catheter)

IT Carboxylic acids, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polycarboxylic acid esters; temperature-controlled crimping of polymeric stent onto catheter)

IT Carboxylic acids, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polycarboxylic; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyamides, biological studies
Polyethers, biological studies
Polyurethanes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyester-; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyesters, biological studies
Polyurethanes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyether-; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyamides, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyiminocarbonate-; temperature-controlled crimping of polymeric stent onto catheter)

IT Vinyl compounds, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polymers; temperature-controlled crimping of polymeric stent onto catheter)

IT Polyurethanes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polysiloxane-; temperature-controlled crimping of polymeric stent

onto catheter)
IT Polysiloxanes, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyurethane-; temperature-controlled crimping of polymeric stent onto catheter)
IT Medical goods
(stents; temperature-controlled crimping of polymeric stent onto catheter)
IT Medical goods
(temperature-controlled crimping of polymeric medical device onto catheter)
IT Anti-inflammatory agents
Antibiotics
Anticoagulants
Antioxidants
Antitumor agents
Cytotoxic agents
(temperature-controlled crimping of polymeric stent containing drug onto catheter)
IT Cellophane
Coronary angioplasty
(temperature-controlled crimping of polymeric stent onto catheter)
IT Acetate fibers, biological studies
Acrylic polymers, biological studies
Alkyd resins
Collagens, biological studies
Elastins
Epoxy resins, biological studies
Fibrinogens
Fibrins
Fluoropolymers, biological studies
Polyamides, biological studies
Polyanhydrides
Polycarbonates, biological studies
Polyesters, biological studies
Polyethers, biological studies
Polyketones
Polymers, biological studies
Polyolefins
Polyoxyalkylenes, biological studies
Polyoxymethylenes, biological studies
Polyphosphazenes
Polysiloxanes, biological studies
Polyurethanes, biological studies
Rayon, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(temperature-controlled crimping of polymeric stent onto catheter)
IT 25067-34-9, Ethylene-vinyl alcohol copolymer
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(Eval EC 151A; temperature-controlled crimping of polymeric stent onto catheter)
IT 9000-94-6, Antithrombin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(temperature-controlled crimping of polymeric stent containing drug onto catheter)
IT 75-13-8D, Isocyanic acid, esters, polymers 9000-11-7, Carboxymethyl

cellulose 9002-85-1, Poly(vinylidene chloride) 9002-86-2, Poly(vinyl chloride) 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-09-2, Polyvinyl methyl ether 9003-20-7, Polyvinyl acetate 9003-27-4, Polyisobutylene 9003-39-8, Polyvinyl pyrrolidone 9003-53-6, Polystyrene 9003-54-7 9003-56-9 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, ethers 9004-35-7 9004-36-8, Cellulose acetate butyrate 9004-48-2, Cellulose propionate 9004-61-9, Hyaluronic acid 9004-70-0 9005-25-8, Starch, biological studies 9005-38-3, Sodium alginate 9010-75-7, Poly(vinylidene fluoride-co-chlorotrifluoroethylene) 9011-17-0, Solef 21508 9015-12-7, Cellulose butyrate 24937-78-8, Ethylene-vinyl acetate copolymer 24937-79-9, Poly(vinylidene fluoride) 24980-41-4, Polycaprolactone 24981-14-4, Poly(vinyl fluoride) 25014-41-9, Polyacrylonitrile 25038-54-4, Polycaprolactam, biological studies 25101-13-7 25248-42-4, Polycaprolactone 25249-16-5, Poly(2-hydroxyethyl methacrylate) 25322-68-3, Polyethylene glycol 26009-03-0, Poly(glycolide) 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3, Poly(hydroxybutyrate) 26100-51-6 26124-68-5, Poly(glycolic acid) 26161-42-2 26202-08-4, Poly(glycolide) 26680-10-4, Poly(DL-lactide) 26744-04-7 26780-50-7, Poly(lactide-co-glycolide) 26811-96-1, Poly(L-lactic acid) 28158-18-1 28728-97-4, Poly[oxy(1-oxo-1,4-butanediyl)] 31621-87-1, Polydioxanone 31852-84-3, Poly(trimethylene carbonate) 32131-17-2, Nylon 66, biological studies 50862-75-4, Poly(oxycarbonyloxy-1,3-propanediyl) 52305-30-3, DL-Lactide-L-lactide copolymer 67291-18-3, Poly[oxy(1-ethyl-3-oxo-1,3-propanediyl)] 83120-66-5, 3-Hydroxy valeric acid homopolymer 102190-94-3, Hydroxyvaleric acid homopolymer 114959-05-6, Poly(4-hydroxybutyrate) 128171-16-4, Hydroxybutyric acid-hydroxyvaleric acid copolymer 133644-68-5 135572-44-0
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(temperature-controlled crimping of polymeric stent onto catheter)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Austin, M; US 2002035774 A1 2002
(2) Hijlkema, L; US 2002143382 A1 2002
(3) Jendersee, B; US 6309402 B1 2001
(4) Miller, J; US 6293959 B1 2001
(5) Shortt, J; US 2003208254 A1 2003
(6) Wang; US 5795318 A 1998
(7) Werneth; US 6056906 A 2000
(8) Yan; US 6066156 A 2000

L21 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:426237 CAPLUS
DOCUMENT NUMBER: 142:469389
TITLE: Biologically beneficial coatings for implantable devices containing fluorinated polymers and methods for fabricating the same
INVENTOR(S): Hossainy, Syed F. A.; Tang, Yiwen
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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     US 20050106204        A1    20050519    US 2003-718278         20031119
     WO 2005051453         A1    20050609    WO 2004-US38135        20041115
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
             SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     EP 1684821            A1    20060802    EP 2004-811021         20041115
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     JP 2007515208         T     20070614    JP 2006-541294         20041115
PRIORITY APPLN. INFO.:                       US 2003-718278      A  20031119
                                             WO 2004-US38135     W  20041115

AN   2005:426237  CAPLUS
DN   142:469389
ED   Entered STN:  19 May 2005
TI   Biologically beneficial coatings for implantable devices containing
     fluorinated polymers and methods for fabricating the same
IN   Hossainy, Syed F. A.; Tang, Yiwen
PA   USA
SO   U.S. Pat. Appl. Publ., 15 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  A61F002-00
INCL 424423000
CC   63-7 (Pharmaceuticals)
     Section cross-reference(s): 37
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   US 20050106204       A1    20050519    US 2003-718278         20031119
     WO 2005051453        A1    20050609    WO 2004-US38135        20041115
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,
             SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
     EP 1684821            A1    20060802    EP 2004-811021         20041115
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     JP 2007515208         T     20070614    JP 2006-541294         20041115
PRAI US 2003-718278        A     20031119
     WO 2004-US38135       W     20041115
CLASS
 PATENT NO.       CLASS   PATENT FAMILY CLASSIFICATION CODES
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 US 20050106204   ICM     A61F002-00
                  INCL    424423000
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	IPCI	A61F0002-00 [ICM,7]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	NCL	424/423.000
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
WO 2005051453	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
EP 1684821	IPCI	A61L0031-10 [ICM,7]; A61L0031-08 [ICM,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61L0027-34 [ICS,7]; A61L0027-54 [ICS,7]; A61L0027-00 [ICS,7,C*]
	IPCR	A61L0031-08 [I,C]; A61L0031-10 [I,A]; A61L0027-00 [I,C]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-14 [I,C]; A61L0031-16 [I,A]
	ECLA	A61L031/10+C08L71/02; A61L031/10+C08L101/04; A61L031/10+C08L67/02
JP 2007515208	IPCI	A61L0031-00 [I,A]; A61F0002-84 [I,A]; A61F0002-82 [I,C*]; A61F0002-04 [I,A]; A61B0017-00 [I,A]
	IPCR	A61L0031-00 [I,C]; A61L0031-00 [I,A]; A61B0017-00 [I,C]; A61B0017-00 [I,A]; A61F0002-04 [I,C]; A61F0002-04 [I,A]; A61F0002-82 [I,C]; A61F0002-84 [I,A]; A61L0027-00 [I,C*]; A61L0027-34 [I,A]; A61L0027-54 [I,A]; A61L0031-08 [I,C*]; A61L0031-10 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	FTERM	4C060/MM25; 4C081/AC08; 4C081/BB06; 4C081/CA132; 4C081/CA162; 4C081/CA182; 4C081/CA192; 4C081/CA232; 4C081/CD082; 4C081/CD35; 4C081/CE02; 4C081/DB07; 4C081/DC03; 4C097/AA15; 4C097/BB01; 4C097/CC03; 4C097/DD01; 4C097/EE06; 4C097/MM05; 4C167/AA50; 4C167/BB06; 4C167/CC08; 4C167/EE08; 4C167/GG04

AB Coatings for drug delivery implantable medical devices and a method of fabricating the coatings are disclosed. The coatings comprise a fluorinated polymer and a biol. beneficial polymer, an example of which includes poly(ethylene-glycol)-block poly(butylene terephthalate)-block poly(ethylene-glycol) (PEG-PBT-PEG block copolymer). A biol. active agent can be addnl. conjugated to the biol. beneficial polymer. For example, a stent was spray coated with a primer, a drug-containing reservoir layer, and a top coat. The primer composition containing about 2.0 % poly(Bu methacrylate) (PBMA) in a solvent blend of acetone and cyclohexanone (7:3) was applied by spraying and the primer was dried and baked at about 50° for about 1 h, yielding a dry primer layer containing about 80 µg of PBMA. The sec. composition contained about 2.0% Solef 21508 and about 1.0% Everolimus, the balance being the same solvent blend of acetone/cyclohexanone. The second composition was applied onto the dried primer layer to form the reservoir layer, using the same spraying technique and equipment used for applying the primer layer, followed by drying and baking at about 50° for about 2 h. A third composition contained about 2.0% PEG-PBT-PEG block copolymer (Polyactive) containing about 45% PBT units and about 55% PEG units, the balance being a solvent blend comprising 1,1,2-trichloroethane and chloroform (4:1). The third composition was applied onto the dried reservoir layer to form a topcoat layer, using the same spraying technique and equipment used for applying

the primer and the reservoir layer, followed by drying and baking at about 50° for about 2 h, yielding a dry topcoat layer containing about 250 μg of Polyactive. No damage of the coatings on the outer surface area or inner surface area was observed after subjecting the coated stent to the simulated in-vitro testing.

ST fluoropolymer beneficial polymer coating implant stent drug delivery

IT Coating materials
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Fluoropolymers, biological studies
Peptides, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Drug delivery systems
Prosthetic materials and Prosthetics
(implants; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyamide-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyoxyalkylenes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyamides, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyester-; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Polyesters, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene-, block; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT Medical goods
(stents; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT 107-73-3, Phosphorylcholine 9002-83-9, Poly(chlorotrifluoroethylene) 9002-84-0, Poly(tetrafluoroethylene) 9003-11-6, Ethylene oxide-propylene oxide copolymer 9003-63-8, Poly(butyl methacrylate) 9004-61-9, Hyaluronic acid 9010-75-7, Poly(vinylidene fluoride-co-chlorotrifluoroethylene) 9011-17-0, Solef 21508 24937-79-9, Poly(vinylidene fluoride) 25038-71-5, Poly(ethylene-co-tetrafluoroethylene) 25067-11-2, Poly(tetrafluoroethylene-co-hexafluoropropene) 25120-07-4, Poly(hexafluoropropene) 25322-68-3, Poly(ethyleneglycol) 25684-76-8, Poly(vinylidene fluoride-co-tetrafluoroethylene) 25792-94-3, Poly(oxy-1,2-phenylenecarbonyl) 26160-99-6, Poly(ethylene-co-hexafluoropropene) 26299-59-2, Poly(tetrafluoroethylene-co-vinyl acetate) 27029-05-6, Poly(tetrafluoroethylene-co-propene) 30977-14-1, Poly(tetrafluoroethylene-co-vinyl alcohol) 37697-64-6D, Perfluoro-2,2-dimethyl-1,3-dioxole, copolymers with perfluoroolefins or perfluoro(alkyl vinyl) ethers 53123-88-9, Rapamycin 89655-56-1

101182-88-1 112504-40-2 122817-56-5 152151-31-0,
Poly(perfluorobutenyl vinyl ether) 159351-69-6, Everolimus 676258-92-7
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

IT 10102-43-9, Nitrogen oxide (NO), biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(donors; coatings for drug delivery implantable devices containing fluorinated polymers and beneficial polymers)

L21 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:700249 CAPLUS
DOCUMENT NUMBER: 141:195367
TITLE: Medical devices comprising rapamycin
INVENTOR(S): Roth, Noah M.; Rush, Scott Lyle; Scheuble, Theresa
PATENT ASSIGNEE(S): Cordis Corporation, USA
SOURCE: Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1449545	A1	20040825	EP 2004-250847	20040218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK, HR				
US 20040167572	A1	20040826	US 2003-371925	20030220
JP 2004275748	A	20041007	JP 2004-43350	20040219
CA 2458172	A1	20040820	CA 2004-2458172	20040220

PRIORITY APPLN. INFO.: US 2003-371925 A 20030220
AN 2004:700249 CAPLUS
DN 141:195367
ED Entered STN: 27 Aug 2004
TI Medical devices comprising rapamycin
IN Roth, Noah M.; Rush, Scott Lyle; Scheuble, Theresa
PA Cordis Corporation, USA
SO Eur. Pat. Appl., 53 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61L031-04
ICS A61L031-16; A61B017-064; A61L017-00; A61B017-11
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1449545	A1	20040825	EP 2004-250847	20040218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK, HR				
US 20040167572	A1	20040826	US 2003-371925	20030220
JP 2004275748	A	20041007	JP 2004-43350	20040219
CA 2458172	A1	20040820	CA 2004-2458172	20040220
PRAI US 2003-371925	A	20030220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1449545	ICM	A61L031-04
	ICS	A61L031-16; A61B017-064; A61L017-00; A61B017-11

	IPCI	A61L0031-04 [ICM,7]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]; A61B0017-064 [ICS,7]; A61L0017-00 [ICS,7]; A61B0017-11 [ICS,7]; A61B0017-03 [ICS,7,C*]
	IPCR	A61B0017-04 [I,C*]; A61B0017-04 [I,A]; A61B0017-00 [N,C*]; A61B0017-00 [N,A]; A61B0017-03 [I,C*]; A61B0017-06 [N,C*]; A61B0017-06 [N,A]; A61B0017-064 [N,C*]; A61B0017-064 [N,A]; A61B0017-08 [I,A]; A61B0017-11 [I,A]; A61B0017-12 [N,C*]; A61B0017-12 [N,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-84 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0027-00 [I,C*]; A61L0027-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-04 [I,C*]; A61L0031-04 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61P0009-00 [I,C*]; A61P0009-00 [I,A]
	ECLA	A61B017/11; A61L017/00C; A61L031/04+C08L27/18; A61L031/04+C087L27/16; A61L031/16
US 20040167572	IPCI	A61B0017-08 [ICM,7]; A61B0017-03 [ICM,7,C*]
	IPCR	A61B0017-04 [I,C*]; A61B0017-04 [I,A]; A61B0017-00 [N,C*]; A61B0017-00 [N,A]; A61B0017-03 [I,C*]; A61B0017-06 [N,C*]; A61B0017-06 [N,A]; A61B0017-064 [N,C*]; A61B0017-064 [N,A]; A61B0017-08 [I,A]; A61B0017-11 [I,A]; A61B0017-12 [N,C*]; A61B0017-12 [N,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-84 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0027-00 [I,C*]; A61L0027-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-04 [I,C*]; A61L0031-04 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61P0009-00 [I,C*]; A61P0009-00 [I,A]
	NCL	606/219.000; 427/002.100; 604/265.000
	ECLA	A61B017/11; A61L017/00C; A61L031/04+C08L27/18; A61L031/04+C087L27/16; A61L031/16
JP 2004275748	IPCI	A61L0027-00 [ICM,7]; A61B0017-04 [ICS,7]; A61B0017-08 [ICS,7]; A61B0017-03 [ICS,7,C*]; A61K0031-436 [ICS,7]; A61K0031-4353 [ICS,7,C*]; A61L0031-00 [ICS,7]; A61M0029-02 [ICS,7]; A61P0009-00 [ICS,7]; A61F0002-06 [ICS,7]
	IPCR	A61B0017-00 [N,A]; A61B0017-00 [N,C*]; A61B0017-03 [I,C*]; A61B0017-06 [N,A]; A61B0017-06 [N,C*]; A61B0017-064 [N,A]; A61B0017-064 [N,C*]; A61B0017-11 [I,A]; A61B0017-12 [N,A]; A61B0017-12 [N,C*]; A61L0017-00 [I,A]; A61L0017-00 [I,C*]; A61L0031-04 [I,A]; A61L0031-04 [I,C*]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]
	FTERM	4C060/BB30; 4C060/CC07; 4C081/AB13; 4C081/AC02; 4C081/AC03; 4C081/BA17; 4C081/CE02; 4C081/DA02; 4C081/DA03; 4C081/DA16; 4C081/DC03; 4C086/AA02; 4C086/CB22; 4C086/MA02; 4C086/MA05; 4C086/MA65; 4C086/NA10; 4C086/ZA36; 4C097/AA15; 4C097/BB01; 4C097/CC02; 4C097/CC03; 4C097/DD02; 4C097/DD04; 4C097/DD09; 4C097/DD10; 4C097/MM05; 4C167/AA42; 4C167/AA50; 4C167/BB06; 4C167/BB12; 4C167/FF05; 4C167/GG04; 4C167/GG16; 4C167/GG24
CA 2458172	IPCI	A61K0031-436 [ICM,7]; A61K0031-4353 [ICM,7,C*]; A61F0002-00 [ICS,7]; A61P0009-00 [ICS,7]; A61L0031-04 [ICS,7]; A61L0031-10 [ICS,7]; A61L0031-08 [ICS,7,C*]; A61L0031-16 [ICS,7]; A61L0031-14 [ICS,7,C*]
	IPCR	A61B0017-04 [I,C*]; A61B0017-04 [I,A]; A61B0017-00

[N,C*]; A61B0017-00 [N,A]; A61B0017-03 [I,C*]; A61B0017-06 [N,C*]; A61B0017-06 [N,A]; A61B0017-064 [N,C*]; A61B0017-064 [N,A]; A61B0017-08 [I,A]; A61B0017-11 [I,A]; A61B0017-12 [N,C*]; A61B0017-12 [N,A]; A61F0002-06 [I,C*]; A61F0002-06 [I,A]; A61F0002-82 [I,C*]; A61F0002-84 [I,A]; A61K0031-4353 [I,C*]; A61K0031-436 [I,A]; A61L0017-00 [I,C*]; A61L0017-00 [I,A]; A61L0027-00 [I,C*]; A61L0027-00 [I,A]; A61L0031-00 [I,C*]; A61L0031-00 [I,A]; A61L0031-04 [I,C*]; A61L0031-04 [I,A]; A61L0031-14 [I,C*]; A61L0031-16 [I,A]; A61P0009-00 [I,C*]; A61P0009-00 [I,A]

AB A medical device for securing biol. tissue to biol. tissue and biol. tissue to synthetic material comprises a fastening element and a therapeutic dosage of rapamycin releasably affixed to at least a portion of the fastening element for the prevention of neointimal hyperplasia in the biol. tissue proximate the fastening element. The therapeutic dosage of rapamycin is incorporated into a polymeric matrix. Then the polymeric matrix containing rapamycin is incorporated into the plurality of holes of fastening element, e.g., a staple, or impregnated into a suture. For example, a perfluoro copolymers were examined as potential coatings for stents. Stents were coated with a poly(vinylidene fluoride-hexafluoropropylene) (Fluorel FC2261Q) elastomer, forming films that were non-tacky, clear, and expanded without incident when the stents were expanded. The coating process was repeated with coatings comprising the 60.6/39.4 by weight vinylidene fluoride-hexafluoropropylene copolymer and about 9, 30, and 50 weight% rapamycin. Coatings comprising about 9 and 30 weight% rapamycin provided white, adherent, tough films that expanded without incident on the stents. Inclusion of the 50 weight% drug in the same manner resulted in some loss of adhesion upon expansion.

ST rapamycin polymer matrix staple suture vascular disease

IT Fluoro rubber
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hexafluoropropene-vinylidene fluoride; medical devices comprising rapamycin incorporated into polymeric matrix for prevention of neointimal hyperplasia)

IT Coating materials
Cytotoxic agents
Dissolution
Drug delivery systems
(medical devices comprising rapamycin incorporated into polymeric matrix for prevention of neointimal hyperplasia)

IT Fluoropolymers, biological studies
Polymers, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medical devices comprising rapamycin incorporated into polymeric matrix for prevention of neointimal hyperplasia)

IT Blood vessel, disease
(medical devices comprising rapamycin incorporated into polymeric matrix for prevention of vascular disease)

IT Medical goods
(staples; medical devices comprising rapamycin incorporated into polymeric matrix for prevention of neointimal hyperplasia)

IT Medical goods
(sutures; medical devices comprising rapamycin incorporated into polymeric matrix for prevention of neointimal hyperplasia)

IT 9011-17-0, Solef 11010
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological

```
     study); USES (Uses)
        (Solef 11008, Solef 21508; medical devices
        comprising rapamycin incorporated into polymeric matrix for prevention
        of neointimal hyperplasia)
IT   9005-49-6, Heparin, biological studies   24937-79-9, Solef 1008
     53123-88-9, Rapamycin
     RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (medical devices comprising rapamycin incorporated into polymeric
        matrix for prevention of neointimal hyperplasia)


=> d his

     (FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

     FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
                  E "NONOATES"
L1           100 S E3
                  E "SDD"
L2           661 S E3
L3             0 S L2 AND L1
L4            17 S "DIAZENIUM DIOLATES"
L5             0 S L4 AND ("POLYMERIC MATRIX")
L6             0 S L1 AND ("POLYMERIC MATRIX")
                  E ("SOLEF")
                  E "SOLEF"
L7           334 S E3
L8             0 S L7 AND (L1 OR L2)
L9             0 S L7 AND L4
L10          761 S L1 OR L2
L11            0 S L10 AND STENTS
                  E STENT
L12         8224 S E3
L13            0 S L12 AND L10
L14           20 S L10 AND POLYMER
L15            1 S L14 AND DEVICE
L16            3 S L7 AND ("IMPLANTABLE DEVICE")
L17           29 S L7 AND STENT
L18            4 S L17 AND ("COATED STENT")
L19            6 DUP REM L18 L16 (1 DUPLICATE REMOVED)
L20            0 S L17 AND (L1 OR L2)
L21            8 S L17 AND 4
L22           12 DUP REM L21 L19 (2 DUPLICATES REMOVED)

=> s ("fluoropolymeric matrix") and ("pegylated drug?")
           80 "FLUOROPOLYMERIC"
       570523 "MATRIX"
        74296 "MATRIXES"
        10377 "MATRICES"
       609567 "MATRIX"
                ("MATRIX" OR "MATRIXES" OR "MATRICES")
            3 "FLUOROPOLYMERIC MATRIX"
                ("FLUOROPOLYMERIC"(W)"MATRIX")
         3491 "PEGYLATED"
       801636 "DRUG"
       359286 "DRUGS"
       972539 "DRUG"
                ("DRUG" OR "DRUGS")
           25 "PEGYLATED DRUG?"
                ("PEGYLATED"(W)"DRUG")
```

```
L23          0 ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")

=> s ("fluoropolymeric matrix") and ("pegylated compound")
            80 "FLUOROPOLYMERIC"
        570523 "MATRIX"
         74296 "MATRIXES"
         10377 "MATRICES"
        609567 "MATRIX"
                 ("MATRIX" OR "MATRIXES" OR "MATRICES")
             3 "FLUOROPOLYMERIC MATRIX"
                 ("FLUOROPOLYMERIC"(W)"MATRIX")
          3491 "PEGYLATED"
        141149 "COMPOUND"
        914533 "COMPOUNDS"
       1033554 "COMPOUND"
                 ("COMPOUND" OR "COMPOUNDS")
       1216197 "COMPD"
       1804334 "COMPDS"
       2588714 "COMPD"
                 ("COMPD" OR "COMPDS")
       3060241 "COMPOUND"
                 ("COMPOUND" OR "COMPD")
            14 "PEGYLATED COMPOUND"
                 ("PEGYLATED"(W)"COMPOUND")
L24          0 ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED COMPOUND")

=> s ("fluoropolymeric matrix") and ("pegylate rapaymicin")
            80 "FLUOROPOLYMERIC"
        570523 "MATRIX"
         74296 "MATRIXES"
         10377 "MATRICES"
        609567 "MATRIX"
                 ("MATRIX" OR "MATRIXES" OR "MATRICES")
             3 "FLUOROPOLYMERIC MATRIX"
                 ("FLUOROPOLYMERIC"(W)"MATRIX")
            16 "PEGYLATE"
             1 "PEGYLATES"
            17 "PEGYLATE"
                 ("PEGYLATE" OR "PEGYLATES")
             0 "RAPAYMICIN"
             0 "PEGYLATE RAPAYMICIN"
                 ("PEGYLATE"(W)"RAPAYMICIN")
L25          0 ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE RAPAYMICIN")

=> s ("fluoropolymeric matrix") and ("pegylated drug?")
            80 "FLUOROPOLYMERIC"
        570523 "MATRIX"
         74296 "MATRIXES"
         10377 "MATRICES"
        609567 "MATRIX"
                 ("MATRIX" OR "MATRIXES" OR "MATRICES")
             3 "FLUOROPOLYMERIC MATRIX"
                 ("FLUOROPOLYMERIC"(W)"MATRIX")
          3491 "PEGYLATED"
        801636 "DRUG"
        359286 "DRUGS"
        972539 "DRUG"
                 ("DRUG" OR "DRUGS")
            25 "PEGYLATED DRUG?"
                 ("PEGYLATED"(W)"DRUG")
L26          0 ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")
```

```
=> s ("fluoropolymeric matrix") and ("pegylate compound")
           80 "FLUOROPOLYMERIC"
       570523 "MATRIX"
        74296 "MATRIXES"
        10377 "MATRICES"
       609567 "MATRIX"
                (("MATRIX" OR "MATRIXES") OR "MATRICES")
            3 "FLUOROPOLYMERIC MATRIX"
                ("FLUOROPOLYMERIC"(W)"MATRIX")
           16 "PEGYLATE"
            1 "PEGYLATES"
           17 "PEGYLATE"
                ("PEGYLATE" OR "PEGYLATES")
       141149 "COMPOUND"
       914533 "COMPOUNDS"
      1033554 "COMPOUND"
                ("COMPOUND" OR "COMPOUNDS")
      1216197 "COMPD"
      1804334 "COMPDS"
      2588714 "COMPD"
                ("COMPD" OR "COMPDS")
      3060241 "COMPOUND"
                ("COMPOUND" OR "COMPD")
            0 "PEGYLATE COMPOUND"
                ("PEGYLATE"(W)"COMPOUND")
L27         0 (("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE COMPOUND")

=> s ("pegylated drug?") or (pegylated compound?) or ("pegylated therapeutic
agent?")
         3491 "PEGYLATED"
       801636 "DRUG"
       359286 "DRUGS"
       972539 "DRUG"
                ("DRUG" OR "DRUGS")
           25 "PEGYLATED DRUG?"
                ("PEGYLATED"(W)"DRUG")
         3491 PEGYLATED
      1059934 COMPOUND?
      1216197 COMPD
      1804334 COMPDS
      2588714 COMPD
                (COMPD OR COMPDS)
      3082627 COMPOUND?
                (COMPOUND? OR COMPD)
           14 PEGYLATED COMPOUND?
                (PEGYLATED(W)COMPOUND?)
         3491 "PEGYLATED"
       259244 "THERAPEUTIC"
        25864 "THERAPEUTICS"
       278235 "THERAPEUTIC"
                ("THERAPEUTIC" OR "THERAPEUTICS")
       908944 "AGENT"
      1348566 "AGENTS"
      1881414 "AGENT"
                ("AGENT" OR "AGENTS")
            2 "PEGYLATED THERAPEUTIC AGENT?"
                ("PEGYLATED"(W)"THERAPEUTIC"(W)"AGENT")
L28        41 (("PEGYLATED DRUG?") OR (PEGYLATED COMPOUND?) OR ("PEGYLATED THER
              APEUTIC AGENT?")
```

```
=> s l28 and ("coated stent?")
        540904 "COATED"
             2 "COATEDS"
        540906 "COATED"
                 ("COATED" OR "COATEDS")
          6104 "STENT"
          6534 "STENTS"
          8224 "STENT"
                 ("STENT" OR "STENTS")
           396 "COATED STENT?"
                 ("COATED"(W)"STENT")
L29           0 L28 AND ("COATED STENT?")

=> s l28 and ("stent?")
          6104 "STENT"
          6534 "STENTS"
          8224 "STENT?"
                 ("STENT" OR "STENTS")
L30           0 L28 AND ("STENT?")

=> s l28 and (implantable device?)
          6245 IMPLANTABLE
             6 IMPLANTABLES
          6251 IMPLANTABLE
                 (IMPLANTABLE OR IMPLANTABLES)
       1338084 DEVICE?
           798 IMPLANTABLE DEVICE?
                 (IMPLANTABLE(W)DEVICE?)
L31           0 L28 AND (IMPLANTABLE DEVICE?)

=> s l28 and stent
          6104 STENT
          6534 STENTS
          8224 STENT
                 (STENT OR STENTS)
L32           0 L28 AND STENT

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     (FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

     FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
                 E "NONOATES"
L1          100 S E3
                 E "SDD"
L2          661 S E3
L3            0 S L2 AND L1
L4           17 S "DIAZENIUM DIOLATES"
L5            0 S L4 AND ("POLYMERIC MATRIX")
L6            0 S L1 AND ("POLYMERIC MATRIX")
                 E ("SOLEF")
                 E "SOLEF"
L7          334 S E3
L8            0 S L7 AND (L1 OR L2)
L9            0 S L7 AND L4
L10         761 S L1 OR L2
L11           0 S L10 AND STENTS
                 E STENT
L12        8224 S E3
L13           0 S L12 AND L10
L14          20 S L10 AND POLYMER
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L15           1 S L14 AND DEVICE
L16           3 S L7 AND ("IMPLANTABLE DEVICE")
L17          29 S L7 AND STENT
L18           4 S L17 AND ("COATED STENT")
L19           6 DUP REM L18 L16 (1 DUPLICATE REMOVED)
L20           0 S L17 AND (L1 OR L2)
L21           8 S L17 AND 4
L22          12 DUP REM L21 L19 (2 DUPLICATES REMOVED)
L23           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")
L24           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED COMPOUND")
L25           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE RAPAYMICIN")
L26           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")
L27           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE COMPOUND")
L28          41 S ("PEGYLATED DRUG?") OR (PEGYLATED COMPOUND?) OR ("PEGYLATED T
L29           0 S L28 AND ("COATED STENT?")
L30           0 S L28 AND ("STENT?")
L31           0 S L28 AND (IMPLANTABLE DEVICE?)
L32           0 S L28 AND STENT

=> s l28 and l21
L33           0 L28 AND L21

=> s l28 and l10
L34           0 L28 AND L10

=> s l28 and l19
L35           2 S L19
L36           4 S L19
L37           0 L28 AND (L35 OR L36)

=> s l28 and l22
L38           1 S L22
L39           3 S L22
L40           8 S L22
L41           0 L28 AND (L38 OR L39 OR L40)

=> d his

     (FILE 'HOME' ENTERED AT 22:03:00 ON 01 JUL 2008)

     FILE 'CAPLUS' ENTERED AT 22:03:33 ON 01 JUL 2008
                 E "NONOATES"
L1          100 S E3
                E "SDD"
L2          661 S E3
L3            0 S L2 AND L1
L4           17 S "DIAZENIUM DIOLATES"
L5            0 S L4 AND ("POLYMERIC MATRIX")
L6            0 S L1 AND ("POLYMERIC MATRIX")
                E ("SOLEF")
                E "SOLEF"
L7          334 S E3
L8            0 S L7 AND (L1 OR L2)
L9            0 S L7 AND L4
L10         761 S L1 OR L2
L11           0 S L10 AND STENTS
                E STENT
L12        8224 S E3
L13           0 S L12 AND L10
L14          20 S L10 AND POLYMER
L15           1 S L14 AND DEVICE
```

```
L16           3 S L7 AND ("IMPLANTABLE DEVICE")
L17          29 S L7 AND STENT
L18           4 S L17 AND ("COATED STENT")
L19           6 DUP REM L18 L16 (1 DUPLICATE REMOVED)
L20           0 S L17 AND (L1 OR L2)
L21           8 S L17 AND 4
L22          12 DUP REM L21 L19 (2 DUPLICATES REMOVED)
L23           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")
L24           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED COMPOUND")
L25           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE RAPAYMICIN")
L26           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATED DRUG?")
L27           0 S ("FLUOROPOLYMERIC MATRIX") AND ("PEGYLATE COMPOUND")
L28          41 S ("PEGYLATED DRUG?") OR (PEGYLATED COMPOUND?) OR ("PEGYLATED T
L29           0 S L28 AND ("COATED STENT?")
L30           0 S L28 AND ("STENT?")
L31           0 S L28 AND (IMPLANTABLE DEVICE?)
L32           0 S L28 AND STENT
L33           0 S L28 AND L21
L34           0 S L28 AND L10
L35           2 S L19
L36           4 S L19
L37           0 S L28 AND L19
L38           1 S L22
L39           3 S L22
L40           8 S L22
L41           0 S L28 AND L22

=> s l28 and polymers
        956760 POLYMERS
            10 POLYMERSES
        956770 POLYMERS
                 (POLYMERS OR POLYMERSES)
L42           7 L28 AND POLYMERS

=> d l42 1-7 hitstr ibib all

L42  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2006:768736  CAPLUS
DOCUMENT NUMBER:          145:217746
TITLE:                    PEGylated drugs with improved
                          circulating half-life using reversibly cleavable
                          9-fluorenylmethoxycarbonyl or 2-sulfo-9-
                          fluorenylmethoxycarbonyl scaffolds
INVENTOR(S):              Shechter, Yoram; Fridkin, Matityahu; Tsubery, Haim
PATENT ASSIGNEE(S):       Yeda Research and Development Co., Ltd., Israel
SOURCE:                   U.S. Pat. Appl. Publ., 89pp., Cont.-in-part of Appl.
                          No. PCT/IL04/000321.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
     US 20060171920       A1    20060803    US 2005-244402         20051006
     WO 2004089280        A2    20041021    WO 2004-IL321          20040408
     WO 2004089280        A3    20050303
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

PRIORITY APPLN. INFO.: US 2003-460816P P 20030408
WO 2004-IL321 A2 20040408

OTHER SOURCE(S): MARPAT 145:217746
AN 2006:768736 CAPLUS
DN 145:217746
ED Entered STN: 04 Aug 2006
TI PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds
IN Shechter, Yoram; Fridkin, Matityahu; Tsubery, Haim
PA Yeda Research and Development Co., Ltd., Israel
SO U.S. Pat. Appl. Publ., 89pp., Cont.-in-part of Appl. No. PCT/IL04/000321.
CODEN: USXXCO
DT Patent
LA English
INCL 424085400; 514003000; 514012000; 530303000; 530399000; 530326000; 530391100; 548525000; 536006400; 536007100
CC 63-1 (Pharmaceuticals)
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20060171920	A1	20060803	US 2005-244402	20051006
WO 2004089280	A2	20041021	WO 2004-IL321	20040408
WO 2004089280	A3	20050303		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-460816P P 20030408
WO 2004-IL321 A2 20040408

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20060171920	INCL	424085400; 514003000; 514012000; 530303000; 530399000; 530326000; 530391100; 548525000; 536006400; 536007100
	IPCI	A61K0038-28 [I,A]; A61K0038-22 [I,A]; A61K0038-21 [I,A]; A61K0038-19 [I,A]; C07K0014-575 [I,A]; C07K0014-535 [I,A]; C07K0014-56 [I,A]; C07K0014-435 [I,C*]
	NCL	424/085.400; 424/085.100; 514/003.000; 514/012.000; 530/303.000; 530/326.000; 530/351.000; 530/391.100; 530/399.000; 536/006.400; 536/007.100; 536/028.100; 548/525.000
WO 2004089280	IPCI	A61K [ICM,7]
	IPCR	A61K [I,S]; A61K0038-00 [I,C*]; A61K0038-00 [I,A]; A61K0038-43 [I,C*]; A61K0038-43 [I,A]

OS MARPAT 145:217746

AB Reversible PEGylated drugs are provided by derivatization of free functional groups of the drug selected from amino, hydroxyl, mercapto, phosphate and/or carboxyl with groups sensitive to mild basic conditions such as 9-fluorenylmethoxycarbonyl (Fmoc) or 2-sulfo-9-fluorenylmethoxycarbonyl (FMS), to which group a PEG moiety is attached. In these PEGylated drugs, the PEG moiety and the drug residue are not linked directly to each other, but rather both residues are linked to different positions of the scaffold Fmoc or FMS structure that is highly sensitive to bases and is removable under physiol. conditions. The drugs are preferably drugs containing an amino group, most preferably peptides and proteins of low or medium mol. weight Similar mols. are provided wherein a protein carrier or another polymer carrier replaces the PEG moiety. PEG-Fmoc and/or PEG-FMS conjugated with insulin, extendin-4, interferon α2, peptide YY, growth hormone, atriopeptin, or gentamycin exhibit prolonged circulating half-lives while retaining therapeutic activities.

ST PEGylation drug fluorenylmethoxycarbonyl sulfofouorenylmethoxycarbonyl scaffold

IT Hepatitis
(A, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Hepatitis
(B, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Sarcoma
(Kaposi's, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Antitumor agents
Human
Nanoparticles
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Respiratory distress syndrome
(adult, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Antibiotics
(aminoglycoside; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationized reaction products, carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT Kidney, disease
(failure, acute, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Heart, disease
(failure, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Antibodies and Immunoglobulins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fragments, reaction products with Fmoc- or sulfoFmoc-carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Pregnancy disorders
(gestational diabetes, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Infection
(hepatitis A, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Infection
(hepatitis B, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Autoimmune disease
(insulin-dependent diabetes mellitus, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Diabetes mellitus
(insulin-dependent, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Drug delivery systems
(liposomes; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Antibodies and Immunoglobulins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal, reaction products with Fmoc- or sulfoFmoc-carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Lymphoma
(non-Hodgkin's, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Diabetes mellitus
(non-insulin-dependent, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl

scaffolds)
IT Gonadotropins
Interferons
Tumor necrosis factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reaction products with Fmoc- or sulfoFmoc-carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Albumins, biological studies
Hemoglobins
Polymers, biological studies
Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reaction products, carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Globins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reaction products; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(serum, reaction products, carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Growth disorders, animal
(short stature, treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Aging, animal
Bladder, neoplasm
Cardiovascular system, disease
Diabetes mellitus
Dyslipidemia
Eating disorders
Hairy cell leukemia
Hyperglycemia
Hypertension
Melanoma
Neoplasm
Obesity
Ovary, neoplasm
Pancreas, neoplasm
(treatment of; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT Interferons
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(α2, reaction products with Fmoc- or sulfoFmoc-carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)
IT 89213-87-6D, Atrial natriuretic peptide-28 (human), reaction product with PEGylated scaffold 118997-30-1D, Peptide YY (human), reaction product

with PEGylated scaffold 123583-37-9D, reaction product with PEGylated scaffold 141758-74-9D, Exendin 4 (Heloderma suspectum), reaction product with PEGylated scaffold 165338-05-6D, 1-31-Exendin 4 (Heloderma suspectum), reaction product with PEGylated scaffold 165338-06-7D, reaction product with PEGylated scaffold 203743-39-9D, reaction product with PEGylated scaffold 210712-28-0D, 1-30-Exendin 4 (Heloderma suspectum), reaction product with PEGylated scaffold 210712-29-1D, reaction product with PEGylated scaffold 210712-30-4D, reaction product with PEGylated scaffold 210712-33-7D, reaction product with PEGylated scaffold 240805-53-2D, reaction product with PEGylated scaffold 284685-04-7D, reaction product with PEGylated scaffold 779352-32-8D, reaction product with PEGylated scaffold
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT 107-96-0, 3-Mercaptopropionic acid 108-24-7, Acetic anhydride 153-78-6, 2-Aminofluorene 15761-38-3, tert-Butoxycarbonyl-Alanine 24424-99-5, Di-tert-butyl-dicarbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT 41345-70-4P 109684-15-3P 141032-27-1P 141340-61-6P, 2-(tert-Butoxycarbonyl-amino)fluorene 141340-62-7P 162021-14-9P 340162-79-0P 778624-94-5P 778624-95-6P 778624-96-7P 778624-97-8P 778624-98-9P 778625-01-7P 778625-03-9P 778625-05-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT 777861-69-5P 778624-99-0P 778625-00-6P 778625-02-8P 778625-04-0P 904299-98-5P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT 106-60-5D, Aminolevulinic acid, reaction products with Fmoc- or sulfoFmoc-carrier 1403-66-3D, Gentamicin, reaction products with Fmoc- or sulfoFmoc-carrier 8001-27-2D, Hirudin, reaction products with Fmoc- or sulfoFmoc-carrier 9004-10-8D, Insulin, reaction products with Fmoc- or sulfoFmoc-carrier 9007-12-9D, Calcitonin, reaction products with Fmoc- or sulfoFmoc-carrier 9034-40-6D, Gonadotropin-releasing hormone, reaction products with Fmoc- or sulfoFmoc-carrier 11061-68-0D, Human Insulin, reaction products with Fmoc- or sulfoFmoc-carrier 11096-26-7D, Erythropoietin, reaction products with Fmoc- or sulfoFmoc-carrier 12629-01-5D, Human growth hormone, reaction products with Fmoc- or sulfoFmoc-carrier 12633-72-6D, Amphotericin, reaction products with Fmoc- or sulfoFmoc-carrier 20830-81-3D, Daunorubicin, reaction products with Fmoc- or sulfoFmoc-carrier 23214-92-8D, Doxorubicin, reaction products with Fmoc- or sulfoFmoc-carrier 25322-68-3D, Polyethylene glycol, reaction products with Fmoc- or sulfoFmoc-drug 26023-30-3D, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)], reaction products with Fmoc- or sulfoFmoc-drug 26100-51-6D, Poly(lactic acid), reaction products with Fmoc- or sulfoFmoc-drug 26680-10-4D, Polylactide, reaction products with Fmoc- or sulfoFmoc-drug 26780-50-7D, reaction products with Fmoc- or sulfoFmoc-drug 85637-73-6D, Atrial natriuretic peptide, reaction

products with Fmoc- or sulfoFmoc-carrier 106388-42-5D, Peptide YY, reaction products with Fmoc- or sulfoFmoc-carrier 874246-61-4D, Extendin 4 (human), reaction products with Fmoc- or sulfoFmoc-carrier 874246-62-5D, Extendin 3 (human), reaction products with Fmoc- or sulfoFmoc-carrier 904679-33-0
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

IT 9034-51-9D, Hemoglobin A, reaction products 9035-22-7D, Hemoglobin S, reaction products
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier; PEGylated drugs with improved circulating half-life using reversibly cleavable 9-fluorenylmethoxycarbonyl or 2-sulfo-9-fluorenylmethoxycarbonyl scaffolds)

L42 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:673250 CAPLUS
DOCUMENT NUMBER: 143:172645
TITLE: Catalytic hydrogenation of nitriles in dipolar aprotic solvent the presence of palladium/carbon catalyst and a strong anhydrous acid to produce capsaicinoid derivatives and amine compounds, particularly DA-5018, and methods for purifying and obtaining the polymorphs thereof
INVENTOR(S): Meckler, Harold; Popp, Karl F.; Mobele, Bingidimi I.; Isbester, Paul K.; Elder, Bruce J.; Vogt, Paul F.; Littler, Benjamin J.; Eastham, Stephen A.; Reed, David P.; Ulysse, Luckner G.; Uttley, Michael D.
PATENT ASSIGNEE(S): Stiefel Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005068414	A1	20050728	WO 2004-US28153	20040927
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20060047171	A1	20060302	US 2004-927493	20040827
CA 2551128	A1	20050728	CA 2004-2551128	20040927
EP 1697303	A1	20060906	EP 2004-782593	20040927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004018038	A	20070417	BR 2004-18038	20040927
MX 2006PA07116	A	20061208	MX 2006-PA7116	20060621
PRIORITY APPLN. INFO.:			US 2003-530985P	P 20031222
			WO 2004-US28153	W 20040927

OTHER SOURCE(S): CASREACT 143:172645; MARPAT 143:172645

AN 2005:673250 CAPLUS
DN 143:172645
ED Entered STN: 29 Jul 2005
TI Catalytic hydrogenation of nitriles in dipolar aprotic solvent the presence of palladium/carbon catalyst and a strong anhydrous acid to produce capsaicinoid derivatives and amine compounds, particularly DA-5018, and methods for purifying and obtaining the polymorphs thereof
IN Meckler, Harold; Popp, Karl F.; Mobele, Bingidimi I.; Isbester, Paul K.; Elder, Bruce J.; Vogt, Paul F.; Littler, Benjamin J.; Eastham, Stephen A.; Reed, David P.; Ulysse, Luckner G.; Uttley, Michael D.
PA Stiefel Laboratories, Inc., USA
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07C233-05
ICS A61K031-165
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 5, 35, 45, 50, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005068414	A1	20050728	WO 2004-US28153	20040927
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US 20060047171	A1	20060302	US 2004-927493	20040827
CA 2551128	A1	20050728	CA 2004-2551128	20040927
EP 1697303	A1	20060906	EP 2004-782593	20040927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004018038	A	20070417	BR 2004-18038	20040927
MX 2006PA07116	A	20061208	MX 2006-PA7116	20060621
PRAI US 2003-530985P	P	20031222		
WO 2004-US28153	W	20040927		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005068414	ICM	C07C233-05
	ICS	A61K031-165
	IPCI	C07C0233-05 [ICM,7]; C07C0233-00 [ICM,7,C*]; A61K0031-165 [ICS,7]
	IPCR	C07C0231-00 [I,C*]; C07C0231-12 [I,A]; C07C0235-00 [I,C*]; C07C0235-34 [I,A]
	ECLA	C07C231/12; C07C235/34
US 20060047171	IPCI	A61K0031-16 [I,A]; C07C0233-24 [I,A]; C07C0233-00 [I,C*]
	IPCR	A61K0031-16 [I,A]; A61K0031-16 [I,C]; C07C0233-00 [I,C]; C07C0233-24 [I,A]
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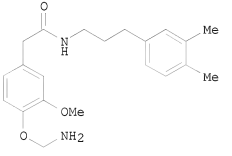
	ECLA	C07C235/34
CA 2551128	IPCI	A61K0031-165 [I,A]; C07C0209-48 [I,A]; C07C0209-00 [I,C*]; C07C0233-05 [I,A]; C07C0233-00 [I,C*]

		ECLA	C07C231/12; C07C235/34
EP	1697303	IPCI	C07C0233-05 [ICM,7]; C07C0233-00 [ICM,7,C*]; C07C0209-48 [ICS,7]; C07C0209-00 [ICS,7,C*]; A61K0031-165 [ICS,7]
		ECLA	C07C231/12; C07C235/34
BR	2004018038	IPCR	C07C0231-00 [I,C*]; C07C0231-12 [I,A]; C07C0235-00 [I,C*]; C07C0235-34 [I,A]
		ECLA	C07C231/12; C07C235/34
MX	2006PA07116	IPCI	A61K0031-165 [ICM,7]; C07C0209-48 [ICS,7]; C07C0209-00 [ICS,7,C*]; C07C0233-05 [ICS,7]; C07C0233-00 [ICS,7,C*]

OS CASREACT 143:172645; MARPAT 143:172645

GI



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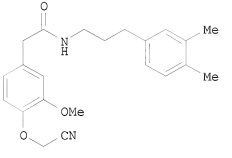

II

AB The invention is directed to a process for the preparation of capsaicinoid amine derivs., e.g. DA-5018 (I), via catalytic hydrogenation of nitriles, e.g. II, in a dipolar organic solvent in the presence of Pd/C catalyst and a strong anhydrous protic acid, and to their purification by recrystn. or by HCl salt formation. The invention is also related to the preparation of novel polymorphs and hydrates of I, and their pharmaceutical compns. and use as analgesics. The advantages include lower reaction temperature and pressure, improved selectivity and enhanced reaction rates, and ease of purification and scale-up. The invention is further related to a process for deprotecting a compound to produce an amine compound Thus, reacting nitrile II in 10% anhydrous NMP in DMF in the presence of 5% Pd/C, MeSO3H with H2 at 25-40° and 50 psi for 2.5 h gave I in 85% yield and 98.4% purity (AUC). In a variation, reaction of crude I with aqueous MeSO3H in THF, azeotropic distillation of THF/H2O, ion exchange with concentrated HCl to give I•HCl (98.8% AUC), and regeneration of the free base from an aqueous MeOH solution, gave I in 97.2% purity after vacuum drying at 45°. I, at a dose of 0.5 mg/kg (s.c.), displayed 50% inhibition of pain in a tail flick

test on mice.

ST amine capsaicinoid prepn nitrile hydrogenation palladium catalyst dipolar solvent; aminoethoxy methoxyphenyl dimethylphenylpropylacetamide polymorph prepn hydrogenation pain skin disease

IT Protective groups
(N-protected intermediates; preparation of amines by N-Boc and N-benzyl deprotection)

IT Sulfonic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(alkanesulfonic; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Fumigants
(amine product; preparation of fumigant amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Fungicides
(amine product; preparation of fungicide amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Herbicides
(amine product; preparation of herbicide amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Insecticides
(amine product; preparation of insecticide amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Pesticides
(amine product; preparation of pesticide amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Growth regulators, plant
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(amine product; preparation of plant growth regulator amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Polymers, preparation
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(amine product; preparation of polymer amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Propellants (sprays and foams)
(amine product; preparation of propellant amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Reagents
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(amine product; preparation of reagent amines by catalytic hydrogenation in dipolar aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Solvents
(aprotic, dipolar, hydrogenation solvents; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Sulfonic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)

(arenesulfonic; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Dermatitis
(atopic, pruritis associated with; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Dermatitis
(atopic; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Infection
(bacterial; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Drug delivery systems
(capsules; preparation of capsaicinoid amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Perfluoro compounds
RL: NUU (Other use, unclassified); USES (Uses)
(carboxylic acids, perfluoroalkyl; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Infection
(herpes simplex; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Skin, disease
(hyperproliferation; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Skin, disease
(impetigo; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Drug delivery systems
(injections; preparation of capsaicinoid amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Drugs
(modifiers; preparation of PEG amines by catalytic hydrogenation in dipolar, aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Nerve, disease
Pain
(neuralgia; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Dermatitis
(neurodermatitis; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Carboxylic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(pentafluoroalkyl; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Carboxylic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(perfluoro, perfluoroalkyl; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Nerve, disease
Pain
(postherpetic neuralgia; preparation of amines, particularly capsaicinoid

DA-5018, polymorphs and hydrates for treating skin diseases)

IT Preservatives
(preparation of PEG amines by catalytic hydrogenation in dipolar, aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Polyoxyalkylenes, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of PEG amines by catalytic hydrogenation in dipolar, aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT Catalysis
Hydrogenation
Hydrogenation catalysts
Nervous system agents
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Capsaicinoids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Acne
Analgesics
Anti-infective agents
Anti-inflammatory agents
Antibacterial agents
Antiviral agents
Cyst, pathological
Eczema
Erythema
Excretions
Infection
Inflammation
Mycosis
Pain
Pruritus
Psoriasis
Seborrhea
Skin, disease
Skin preparations (pharmaceutical)
Swelling, biological
Tinea (skin disease)
Wart
(preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Amines, preparation
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(products; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Skin, disease

(pyoderma; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Nitriles, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactants; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Skin, disease
(rosacea; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Hypertrophy
(sebaceous glands; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Metabolic disorders
(skin; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT Drug delivery systems
(syrups; preparation of capsaicinoid amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Drug delivery systems
(topical; preparation of capsaicinoid amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT Infection
(viral; preparation of amines, particularly capsaicinoid DA-5018, polymorphs and hydrates for treating skin diseases)

IT 25322-68-3P, Polyethylene glycol
RL: SPN (Synthetic preparation); PREP (Preparation)
(PEGylated compds.; preparation of PEG amines by catalytic hydrogenation in dipolar, aprotic organic solvent in presence of palladium/carbon catalyst and a strong anhydrous protic acid)

IT 147497-64-1P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); REM (Removal or disposal); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(amine product; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 7440-05-3, Palladium, uses
RL: CAT (Catalyst use); USES (Uses)
(catalyst; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 109-99-9, THF, uses
RL: NUU (Other use, unclassified); USES (Uses)
(hydrogenation and recrystn. solvent; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 67-68-5, DMSO, uses 68-12-2, DMF, uses 126-33-0, Sulfolane 127-19-5, DMA 680-31-9, HMPA, uses 872-50-4, NMP, uses 7226-23-5, DMPU
RL: NUU (Other use, unclassified); USES (Uses)
(hydrogenation solvent; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 860782-00-9P, 2-[4-(Cyanomethoxy)-3-methoxyphenyl]-N-[3-(3,4-dimethylphenyl)propyl]acetamide
RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT

(Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 15964-80-4P, Methyl homovanillate 81069-31-0P, 3-(3,4-Dimethylphenyl)acrylonitrile 142332-70-5P, 3-(3,4-Dimethylphenyl)propylamine 142333-36-6P, N-[3-(3,4-Dimethylphenyl)propyl]-2-(4-hydroxy-3-methoxyphenyl)acetamide 237769-03-8P, 2-Oxo-3-phenylmethyl-1,2,3-oxathiazolidine 860781-99-3P, 3-(3,4-Dimethylphenyl)propylamine hydrochloride 860782-01-0P 860782-02-1P, [4-(2-Aminoethoxy)-3-methoxyphenyl]acetic acid hydrochloride 860782-03-2P, [4-[2-[(tert-Butoxycarbonyl)amino]ethoxy]-3-methoxyphenyl]acetic acid 860782-04-3P 860782-05-4P 860782-06-5P, Methyl 2-[4-[2-[(phenylmethyl)amino]ethoxy]-3-methoxyphenyl]acetate
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 7440-44-0, Carbon, uses
RL: CAT (Catalyst use); NUU (Other use, unclassified); USES (Uses)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 860781-96-0P
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 860781-97-1P, cis-3-(3,4-Dimethylphenyl)acrylonitrile 860781-98-2P, trans-3-(3,4-Dimethylphenyl)acrylonitrile
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 75-75-2, Methanesulfonic acid 76-05-1, Trifluoroacetic acid, uses 7664-38-2, Phosphoric acid, uses 7664-38-2D, Phosphoric acid, alkyl- and arylphosphoric acids, uses 7664-93-9, Sulfuric acid, uses 14332-09-3, Hypophosphorous acid
RL: NUU (Other use, unclassified); USES (Uses)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 104-63-2, N-Benzylethanolamine 306-08-1, Homovanillic acid 1333-74-0, Hydrogen, reactions 2537-48-6, Diethyl (cyanomethyl)phosphonate 5973-71-7, 3,4-Dimethylbenzaldehyde 10431-98-8, 2-Ethyloxazoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 174661-97-3P, DA 5018
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)

IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-64-1, Acetone, uses

71-23-8, 1-Propanol, uses 75-05-8, Acetonitrile, uses 78-93-3, Methyl ethyl ketone, uses 108-10-1, Methyl isobutyl ketone 108-21-4, Isopropyl acetate 141-78-6, Ethyl acetate, uses 1634-04-4, Methyl tert-butyl ether 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(recrystn. solvent; preparation of amines, particularly DA-5018, by catalytic hydrogenation in presence of palladium/carbon catalyst and methods for purifying and obtaining the polymorphs and hydrates)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Cha, B; Enhanced Skin Permeation of a New Capsaicin derivative (DA-5018) from a Binary Vehicle System Composed of Isopropyl-myristate and Ethoxydiglycol 2001, V24(3), P224 CAPLUS
(2) Kim, H; Structural and Physicochemical Studies on DA-5018, a New Capsaicin Derivative 1997, V27(2), P119 CAPLUS

L42 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:678871 CAPLUS
DOCUMENT NUMBER: 139:214915
TITLE: Hydrolytically-degradable alkylene oxide polymers, preparation, hydrogels, and biological conjugate delivery system
INVENTOR(S): Bentley, Michael D.; Harris, J. Milton; Zhao, Xuan; Battle, William Dudle, III
PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003070805	A1	20030828	WO 2003-US5113	20030214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003213152	A1	20030909	AU 2003-213152	20030214
EP 1476489	A1	20041117	EP 2003-709198	20030214
EP 1476489	B1	20080409		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20060239961	A1	20061026	US 2003-371996	20030214
AT 391742	T	20080415	AT 2003-709198	20030214
PRIORITY APPLN. INFO.:			US 2002-357350P P	20020215
			WO 2003-US5113 W	20030214

AN 2003:678871 CAPLUS
DN 139:214915
ED Entered STN: 29 Aug 2003
TI Hydrolytically-degradable alkylene oxide polymers, preparation, hydrogels, and biological conjugate delivery system
IN Bentley, Michael D.; Harris, J. Milton; Zhao, Xuan; Battle, William Dudle, III

PA Nektar Therapeutics Al, Corporation, USA
SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08G065-00
ICS C08G064-18; A61K009-20; A61K009-70
CC 35-5 (Chemistry of Synthetic High Polymers)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003070805	A1	20030828	WO 2003-US5113	20030214
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003213152	A1	20030909	AU 2003-213152	20030214
	EP 1476489	A1	20041117	EP 2003-709198	20030214
	EP 1476489	B1	20080409		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 20060239961	A1	20061026	US 2003-371996	20030214
	AT 391742	T	20080415	AT 2003-709198	20030214
PRAI	US 2002-357350P	P	20020215		
	WO 2003-US5113	W	20030214		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003070805	ICM	C08G065-00
	ICS	C08G064-18; A61K009-20; A61K009-70
	IPCI	C08G0065-00 [ICM,7]; C08G0064-18 [ICS,7]; C08G0064-00 [ICS,7,C*]; A61K0009-20 [ICS,7]; A61K0009-70 [ICS,7]
	IPCR	A61K0047-34 [I,C*]; A61K0047-34 [I,A]; C08G0064-00 [I,C*]; C08G0064-18 [I,A]; C08G0065-00 [I,C*]; C08G0065-329 [I,A]; C08G0065-333 [I,A]
	ECLA	A61K047/34; C08G064/18B; C08G065/329; C08G065/333H4; C08G065/333U
AU 2003213152	IPCI	C08G0065-00 [ICM,7]; A61K0009-20 [ICS,7]; A61K0009-70 [ICS,7]; C08G0064-18 [ICS,7]; C08G0064-00 [ICS,7,C*]
	IPCR	A61K0047-34 [I,C*]; A61K0047-34 [I,A]; C08G0064-00 [I,C*]; C08G0064-18 [I,A]; C08G0065-00 [I,C*]; C08G0065-329 [I,A]; C08G0065-333 [I,A]
EP 1476489	IPCI	C08G0065-00 [I,C]; C08G0065-00 [I,A]; A61K0009-20 [I,C]; A61K0009-20 [I,A]; A61K0009-70 [I,C]; A61K0009-70 [I,A]; C08G0064-00 [I,C]; C08G0064-18 [I,A]
	IPCR	A61K0047-34 [I,C*]; A61K0047-34 [I,A]; C08G0064-00 [I,C*]; C08G0064-18 [I,A]; C08G0065-00 [I,C*]; C08G0065-329 [I,A]; C08G0065-333 [I,A]
	ECLA	A61K047/34; C08G064/18B; C08G065/329; C08G065/333H4; C08G065/333U
US 20060239961	IPCI	A61K0031-785 [I,A]; A61K0031-74 [I,C*]; C08G0008-28 [I,A]; C08G0008-00 [I,C*]
	IPCR	A61K0031-74 [I,C]; A61K0031-785 [I,A]; C08G0008-00 [I,C]; C08G0008-28 [I,A]
	NCL	424/078.320; 525/510.000

AT 391742 IPCI C08G0065-00 [I,C]; C08G0065-00 [I,A]; A61K0009-20 [I,C]; A61K0009-20 [I,A]; A61K0009-70 [I,C]; A61K0009-70 [I,A]; C08G0064-00 [I,C]; C08G0064-18 [I,A]
IPCR A61K0047-34 [I,C*]; A61K0047-34 [I,A]; C08G0065-329 [I,A]; C08G0065-333 [I,A]
ECLA A61K047/34; C08G064/18B; C08G065/329; C08G065/333H4; C08G065/333U

AB A water-soluble, nonpeptidic polymer comprises ≥2 alkylene oxide-based oligomers linked together by hydrolytically degradable linkages such as carbonates. Typically, the oligomer portion of the polymer is an amphiphilic triblock copolymer having a central propylene oxide block or butylene oxide block positioned between 2 ethylene oxide blocks. The polymer can be hydrolytically degraded into oligomers under physiol. conditions. In aqueous media, the polymer preferably forms thermally-reversible, hydrolytically-degradable hydrogels that can be used for PEGylated drug delivery and related biomedical applications.

ST polyoxyalkylene carbonate hydrogel hydrolytic degrdn

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(block; hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT Drug delivery systems
(carriers; hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT Antibodies and Immunoglobulins
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugate with hydrolytically-degradable alkylene oxide block copolymer; hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT Hydrogels
(hydrolytically-degradable alkylene oxide polymers linked through)

IT Biodegradable materials
(hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT 32315-10-9, Triphosgene
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling agent; hydrolytically-degradable alkylene oxide polymers linked through)

IT 587023-77-6P
RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT 251636-65-4P, Ethylene oxide-propylene oxide block copolymer mesylate
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

IT 60842-46-8DP, FITC-dextran, conjugate with hydrolytically-degradable alkylene oxide block copolymer 83916-01-2DP, Biphalin, conjugate with hydrolytically-degradable alkylene oxide block copolymer 587023-77-6DP, conjugate with biol. active mol.
RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydrolytically-degradable alkylene oxide polymers linked through carbonate groups)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
(1) American Cyanamid Co; EP 0258780 A 1988 CAPLUS
(2) Langdon, W; US 4189609 A 1980 CAPLUS
(3) Pathak, C; US 6201065 B1 2001 CAPLUS
(4) Powell, M; US 6177095 B1 2001 CAPLUS

L42 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:543124 CAPLUS
DOCUMENT NUMBER: 138:242938
TITLE: PEGylation: engineering improved pharmaceuticals for enhanced therapy
AUTHOR(S): Molineux, G.
CORPORATE SOURCE: Hematology/Research, Amgen, Thousand Oaks, CA, USA
SOURCE: Cancer Treatment Reviews (2002), 28(Suppl. A), 13-16
CODEN: CTREDJ; ISSN: 0305-7372
PUBLISHER: W. B. Saunders
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AN 2002:543124 CAPLUS
DN 138:242938
ED Entered STN: 22 Jul 2002
TI PEGylation: engineering improved pharmaceuticals for enhanced therapy
AU Molineux, G.
CS Hematology/Research, Amgen, Thousand Oaks, CA, USA
SO Cancer Treatment Reviews (2002), 28(Suppl. A), 13-16
CODEN: CTREDJ; ISSN: 0305-7372
PB W. B. Saunders
DT Journal; General Review
LA English
CC 63-0 (Pharmaceuticals)
Section cross-reference(s): 1
AB A review. Conjugating biomols. with polyethylene glycol (PEG), a process known as PEGylation, is now an established method for increasing the circulating half-life of protein and liposomal pharmaceuticals. Polyethylene glycols are nontoxic water-soluble polymers that, owing to their large hydrodynamic volume, create a shield around the PEGylated drug, thus protecting it from renal clearance, enzymic degradation, and recognition by cells of the immune system. Agent-specific PEGylation methods have been used in recent years to produce PEGylated drugs that have biol. activity that is the same as, or greater than, that of the parent drug. These agents have distinct in vivo pharmacokinetic and pharmacodynamic properties, as exemplified by the self-regulated clearance of pegfilgrastim, the prolonged absorption half-life of PEGylated interferon alpha-2a, and the altered tolerability profile of PEGylated liposomal doxorubicin. PEGylated agents have dosing schedules that are more convenient and more acceptable to patients, and this can have a beneficial effect on the quality of life of patients with cancer.
ST review PEG PEGylation drug delivery
IT Drug delivery systems
Drugs
Human
(PEGylation engineering improved pharmaceuticals for enhanced therapy)
IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylation engineering improved pharmaceuticals for enhanced therapy)
IT 25322-68-3, PEG
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylation engineering improved pharmaceuticals for enhanced therapy)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Abshire, T; Blood 2000, V96, P1709 CAPLUS
(2) Bailon, P; Pharm Sci Technol Today 1998, V1, P352 CAPLUS
(3) Bowen, S; Exp Hematol 1999, V27, P425 CAPLUS
(4) Delgado, C; Crit Rev Ther Drug Carrier Syst 1992, V9, P249 CAPLUS
(5) Gabizon, A; Drugs 1997, V54(Suppl 4), P15
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L42 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:909066 CAPLUS
DOCUMENT NUMBER: 134:61537
TITLE: PEGylated drug complexed with bioadhesive polymer suitable for drug delivery and methods relating thereto
INVENTOR(S): Hoffman, Allan S.; Hayashi, Yoshiki
PATENT ASSIGNEE(S): University of Washington, USA
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6165509	A	20001226	US 1998-145062	19980901

PRIORITY APPLN. INFO.: US 1998-145062 19980901

AN 2000:909066 CAPLUS
DN 134:61537
ED Entered STN: 28 Dec 2000
TI PEGylated drug complexed with bioadhesive polymer suitable for drug delivery and methods relating thereto
IN Hoffman, Allan S.; Hayashi, Yoshiki
PA University of Washington, USA
SO U.S., 20 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K047-34
ICS A61K047-32
INCL 424487000
CC 63-6 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6165509	A	20001226	US 1998-145062	19980901

PRAI US 1998-145062 19980901

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6165509	ICM	A61K047-34
	ICS	A61K047-32
	INCL	424487000
	IPCI	A61K0047-34 [ICM,7]; A61K0047-32 [ICS,7]
	IPCR	A61K0009-00 [I,C*]; A61K0009-00 [I,A]
	NCL	424/487.000; 424/488.000
	ECLA	A61K009/00M18D

AB PEGylated drugs complexed with bioadhesive polymers, wherein the PEGylated drugs comprise a polyethylene glycol covalently bonded to the drugs are disclosed. The PEGylated drug/bioadhesive polymer complex and compns. thereof may be topically administered to body fluids or mucosal tissues. Methods of administering the PEGylated drug /bioadhesive polymer complex and compns. thereof to an animal are also disclosed. A formulation containing 5kD PEG-papain 0.2, and 450 kD polyacrylic acid 2, and 185 kD free PEG 1.6 mg was prepared for testing the release of PEGylated papain from the formulations.

ST polyethylene glycolylated drug bioadhesive polymer complex

IT Digestive tract
Lung
Mouth
Pharynx
Respiratory tract
Wound
(PEGylated drug complexed with bioadhesive polymer suitable for drug delivery to)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates with drugs, complexes with bioadhesive polymers; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Peptides, biological studies
Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Drug delivery systems
(mucosal; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Drug delivery systems
(nasal; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Drug delivery systems
(ophthalmic; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. containing PEGylated drug complexed with bioadhesive polymer and free polymers)

IT Drug delivery systems
(topical; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT Drug delivery systems
(vaginal; PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)

IT 9001-73-4DP, Papain, conjugates with PEG, complexes with polyacrylic acid
9035-81-8DP, Trypsin inhibitor, conjugates with PEG, complexes with

polyacrylic acid
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)
IT 9003-01-4D, Polyacrylic acid, complexes with PEGylated drugs 9003-32-1D, PolyEthylacrylate, complexes with PEGylated drugs 9012-76-4D, Chitosan, complexes with PEGylated drugs 25087-26-7D, Polymethacrylic acid, complexes with PEGylated drugs 25322-68-3D, Polyethylene glycol, conjugates with drugs, complexes with bioadhesive polymers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(PEGylated drug complexed with bioadhesive polymer suitable for drug delivery)
IT 9002-89-5, Polyvinyl alcohol 9003-05-8, Polyacrylamide 9003-39-8, Polyvinylpyrrolidone 25322-68-3, Polyethylene glycol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. containing PEGylated drug complexed with bioadhesive polymer and free polymers)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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L42 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2000:890604 CAPLUS
DOCUMENT NUMBER:	134:242530
TITLE:	Mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages
AUTHOR(S):	Lele, B. S.; Hoffman, A. S.
CORPORATE SOURCE:	Bioengineering Department, University of Washington, Seattle, WA, 98195, USA
SOURCE:	Journal of Controlled Release (2000), 69(2), 237-248 CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER:	Elsevier Science Ireland Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AN 2000:890604 CAPLUS
DN 134:242530
ED Entered STN: 20 Dec 2000
TI Mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages
AU Lele, B. S.; Hoffman, A. S.
CS Bioengineering Department, University of Washington, Seattle, WA, 98195, USA
SO Journal of Controlled Release (2000), 69(2), 237-248
CODEN: JCREEC; ISSN: 0168-3659
PB Elsevier Science Ireland Ltd.
DT Journal
LA English

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 35
AB We have designed a new mucoadhesive drug delivery formulation based on H-bonded complexes of poly(acrylic acid) (PAA) or poly(methacrylic acid) (PMAA) with the poly(ethylene glycol) (PEG), of a (PEG)-drug conjugate. The PEGylated prodrugs are synthesized with degradable PEG-anhydride-drug bonds for eventual delivery of free drug from the formulation. In this work we have used indomethacin as the model drug which is PEGylated via anhydride bonds to the PEG. The complexes are designed first to dissociate as the formulation swells in contact with mucosal surfaces at pH 7.4, releasing PEG-indomethacin, which then hydrolyzes to release free drug and free PEG. We found that as MW of PAA increases, the dissociation rate of the complex decreases, which results in decreased rate of release of the drug. On the other hand, the drug release from PEG-indomethacin alone and from solid mixture of PEG-indomethacin+PAA was much faster than that from the H-bonded complexes. Due to the differences in the thermal stability, PMAA complex exhibited slightly faster drug release than that of the PAA complex of comparable MW. These H-bonded complexes of degradable PEGylated drugs with bioadhesive polymers should be useful for mucosal drug delivery.
ST polyacrylate mucoadhesive drug carrier PEGylated drug
IT Drug delivery systems
(bioadhesive; mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
IT Polymer degradation
(hydrolytic; mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
IT Dissolution rate
Hydrogen bond
(mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
IT 53-86-1, Indomethacin
RL: PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
IT 9003-01-4DP, Polyacrylic acid, complex with indomethacin methoxypolyethylene glycol anhydride 25087-26-7DP, Polymethacrylic acid, complex with indomethacin methoxypolyethylene glycol anhydride 329967-64-8DP, complex with polyacrylates
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
IT 67665-18-3P 151835-79-9P, Poly(oxy-1,2-ethanediyl), α-(chloroacetyl)-ω-methoxy- 329967-64-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mucoadhesive drug carriers based on complexes of poly(acrylic acid) and PEGylated drugs having hydrolyzable PEG-anhydride-drug linkages)
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
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ACCESSION NUMBER:	1999:722213 CAPLUS
DOCUMENT NUMBER:	132:284018
TITLE:	Delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids
AUTHOR(S):	Hayashi, Yoshiki; Hoffman, Allan S.; Harris, J. Milton
CORPORATE SOURCE:	Bioengineering Department, University of Washington, Seattle, WA, 98195, USA
SOURCE:	Proceedings of the International Symposium on Controlled Release of Bioactive Materials (1999), 26th, 210-211 CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER:	Controlled Release Society, Inc.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AN 1999:722213 CAPLUS
DN 132:284018
ED Entered STN: 12 Nov 1999
TI Delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids
AU Hayashi, Yoshiki; Hoffman, Allan S.; Harris, J. Milton
CS Bioengineering Department, University of Washington, Seattle, WA, 98195, USA
SO Proceedings of the International Symposium on Controlled Release of

Bioactive Materials (1999), 26th, 210-211
CODEN: PCRMEY; ISSN: 1022-0178
PB Controlled Release Society, Inc.
DT Journal
LA English
CC 63-5 (Pharmaceuticals)
AB Studies provided proof of principle of the hypothesis that complexation of PEGylated drugs with polycarboxylic polymers will retard their release and some of the dey variable that need to be optimized for delivery of specific PEGylated drugs were identified.
ST PEGylated drug delivery bioadhesive
IT Drug delivery systems
(bioadhesive, controlled-release; delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT Dissolution rate
Hydrogen bond
(delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT Polyoxyalkylenes, properties
RL: PRP (Properties)
(delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT Polyoxyalkylenes, biological studies
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT Polyoxyalkylenes, biological studies
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(reaction products with proteins; delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT 25322-68-3, PEG
RL: PRP (Properties)
(delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
IT 9001-73-4D, Papain, reaction products with PEG 9003-01-4, Polyacrylic acid 9078-38-0D, Soybean trypsin inhibitor, reaction products with PEG 25087-26-7, Polymethacrylic acid 25322-68-3D, PEG, reaction products with proteins
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of PEGylated drugs from bioadhesive formulations by disruption of H-bonded complexes of PEG with polyacids)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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